# Public Health Agency of Canada

# 2009-10

# Departmental Performance Report

# Table of Contents


**MINISTER'S MESSAGE** ..... 1

**MESSAGE FROM THE CHIEF PUBLIC HEALTH OFFICER** ..... 2

**SECTION I – OVERVIEW** ..... 3

1.1 **Summary Information** ..... 3

Raison d'être ..... 3

Responsibilities ..... 3

Strategic Outcome and Program Activity Architecture (PAA) ..... 3

1.2 **Planning Summary** ..... 5

2009-10 Financial Resources ($ millions) ..... 5

2009-10 Human Resources (Full-Time Equivalents - FTEs) ..... 5

Performance Summary ..... 5

Contribution of Priorities to Strategic Outcome ..... 7

Risk Analysis ..... 9

Expenditure Profile ..... 11

Canada's Economic Action Plan ..... 12

Voted and Statutory Items ($ millions) ..... 13

**SECTION II – ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME** ..... 14

2.1 **Strategic Outcome** ..... 14

2.1.1 Program Activity – Health Promotion ..... 14

2.1.2 Program Activity – Chronic Disease Prevention and Control ..... 19

2.1.3 Program Activity – Infectious Disease Prevention and Control ..... 24

2.1.4 Program Activity – Emergency Preparedness and Response ..... 30

2.1.5 Program Activity – Strengthen Public Health Capacity ..... 34

2.1.6 Program Activity – Internal Services ..... 37

2.2 **Canada's Economic Action Plan** ..... 41

**SECTION III – SUPPLEMENTARY INFORMATION** ..... 42

3.1 **Financial Highlights** ..... 42

Financial Statements ..... 43

3.2 **List of Tables** ..... 43

# Minister's Message

I am pleased to present the 2009-10 Performance Report for the Public Health Agency of Canada.

Over the past year, the Agency worked with Health Canada and other partners to lead Canada's response to the H1N1 influenza pandemic. Canadians can be proud of the professionals working at PHAC's National Microbiology Laboratory who quickly responded by sequencing the full genome of virus samples from Canada and Mexico, thereby making a significant contribution to the global understanding of H1N1. The Agency's Global Public Health Intelligence Network (GPHIN) played a critical role in providing early-warning and ongoing reports regarding various public health threats including H1N1 to Canadians, international partners and World Health Organization (WHO) officials. The WHO has acknowledged GPHIN's contribution to the early detection of the pandemic. These successes demonstrate Canada's commitment to world-class research and our commitment to promote and protect the health of Canadians.

Other actions of the Agency that touched all Canadians include the publication of the H1N1 Preparedness Guide in print and online, and nation-wide advertising and education efforts about public health measures to prevent the spread of infection. Over 45 percent of Canadians were immunized in an unprecedented national immunization campaign. And, the public exceeded expectations in their response to advertising and education programs to manage and reduce the transmission of the H1N1 flu virus by coughing in their sleeves and washing their hands more thoroughly and frequently.

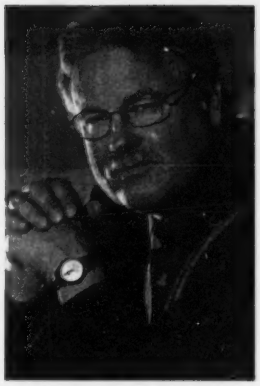
Internationally, the Agency offered professional support and assistance to the relief effort in Haiti. Working with the United States Health and Human Services and the Pan American Health Organization, Agency employees conducted public health needs assessments in the early stages of the response. The experiences gained and partnerships formed by Agency employees and Canadian medical professionals with international disaster response organizations are invaluable contributions to building the Agency's capacity and will strengthen Canada's emergency response capability.

The Agency continues to work diligently to promote healthy lifestyles and prevent and mitigate diseases in Canada. For example, the Canada Prenatal Nutrition Program and the Community Action Program for Children reach out to vulnerable populations living in conditions of risk by providing funding to community-based groups and coalitions. These programs promote the health and social development of pregnant women, infants, children (0-6 years) and their families. The Agency also supports www.AboutKidsHealth.ca to provide health-care professionals, parents and children with comprehensive, authoritative and accessible information on children's health. AboutKidsHealth is especially helpful for serving Canadians in remote communities. To help mitigate chronic diseases in Canada, PHAC is funding CLASP (Collaboration Linking Science and Action for Prevention) projects that will accelerate chronic disease prevention in Canada, including a focus on northern and Aboriginal communities.

I would like to conclude by saying how proud I am of the Agency's and its partners' efforts. Year after year we are working toward building a healthier Canada.

**The Honourable Leona Aglukkaq, P.C., M.P.**
Minister of Health
Government of Canada

## Message from the Chief Public Health Officer



The ability of the Public Health Agency of Canada to work with provinces, territories, national and international partners to mitigate threats to public health has helped us become a respected leader in creating and fulfilling our vision for healthy Canadians and communities in a healthier world.

While the majority of preventable premature mortality is usually a result of everyday events such as chronic disease and injury, 2009 presented a unique challenge particularly to the health of young adults. The H1N1 influenza pandemic challenged the Agency's leadership ability, its emergency preparedness plans and its capacity to respond effectively and efficiently to public health threats. The Agency rose to the challenge by using a number of mechanisms such as FluWatch, the Agency's national surveillance system that monitors the spread of influenza and influenza-like illnesses in Canada. We made great strides as a country to control the spread of H1N1, but we must remain vigilant. The Agency supports the federal role in public health as a national coordinating body working with partner agencies at all levels. When dealing with disease outbreaks, physicians, nurses and pharmacists are the primary and most trusted sources of information on immunization for the general public. The Agency worked collaboratively with the provinces and territories to assist health workers and others by developing effective online learning programs regarding safe immunization and by distributing consistent and accurate public health information.

The Agency worked in partnership with the Canadian Food Inspection Agency and Health Canada to address the recommendations of *Lessons Learned: Public Health Agency of Canada's Response to the 2008 Listeriosis Outbreak*. For example, the Foodborne Illness Outbreak Response Protocol was revised and shared with the provinces and territories in February 2010. The revised protocol includes clarified roles and responsibilities of food safety partners.

The Agency is also helping to build the skills and knowledge base of Canadians because good decisions are based on good knowledge. To that end, as one example, the Agency published *Tracking Heart Disease and Stroke in Canada*, the most current and comprehensive picture of cardiovascular diseases in Canada.

Children are the focus in the *Chief Public Health Officer's Report on the State of Public Health in Canada 2009 Growing Up Well - Priorities for a Healthy Future*. The challenges faced by many Aboriginal, disabled and low-income children call for attention. The report noted that the problem of inadequate income persists in Canada. Approximately 12 percent of Canadians still live below the poverty line, and the links between poverty and children's health are significant. Infant mortality rates are 61 percent higher in low-income areas and children who experience poverty are more likely to suffer health problems, developmental delays and behaviour disorders that will persist over their life course. The Agency continues its work to increase awareness and education about determinants of health such as promoting healthy lifestyles and increased physical activity.

In all of these areas, while there are many accomplishments to celebrate, there is still much work to be done. I look forward to the continued leadership of the Public Health Agency of Canada as we strive to meet these challenges.

**David Butler-Jones, M.D.**
Chief Public Health Officer

# Section I – Overview

## 1.1 Summary Information

### Raison d'être

Public health involves the organized efforts of society to keep people healthy and to contribute to the prevention of injury, illness and premature death. It is a combination of programs, services and policies that protect and promote the health of all Canadians. In Canada, public health is a responsibility that is shared by the three levels of government, the private sector, non-government organizations, health professionals and the public.

In September 2004, the Public Health Agency of Canada (the Agency or PHAC) was created within the federal Health Portfolio to deliver on the Government of Canada's commitment to help protect the health and safety of all Canadians, to increase its focus on public health, and to contribute to improving health and strengthening the health care system. Its activities focus on promoting health, preventing and controlling chronic and infectious diseases, preventing injuries, preparing for and responding to public health emergencies, and enhancing Canada's public health capacity.

### Responsibilities

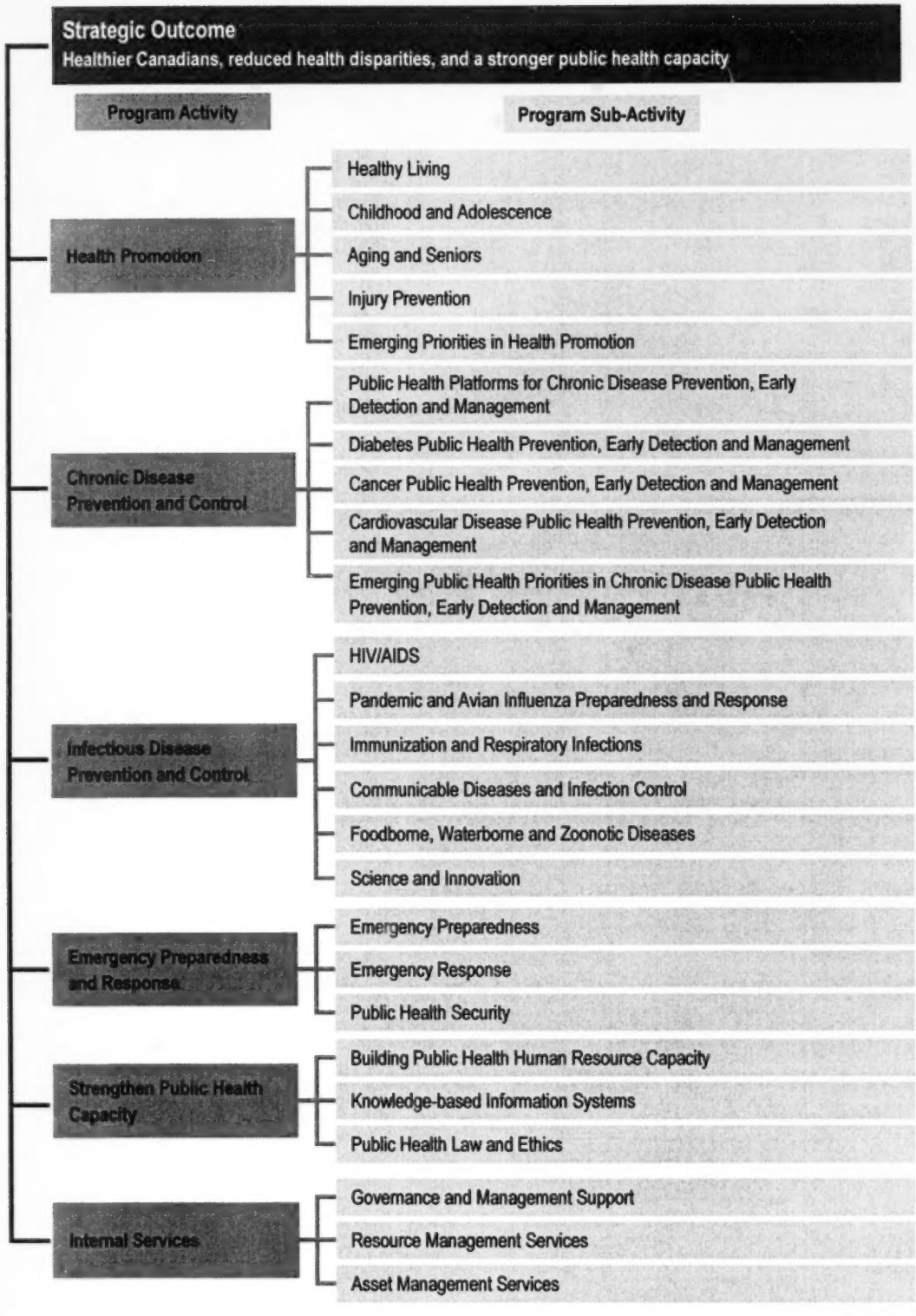
The Agency has the responsibility to:

- contribute to the prevention of disease and injury, and the promotion of health;
- enhance the quality and quantity of surveillance data and expand the knowledge of disease and injury in Canada;
- provide federal leadership and accountability in managing public health emergencies;
- serve as a central point for sharing Canada's expertise with the rest of the world and applying international research and development to Canada's public health programs; and
- strengthen intergovernmental collaboration on public health and facilitate national approaches to public health policy and planning.

In December 2006, the *Public Health Agency of Canada Act* came into force, giving the Agency the statutory basis to continue fulfilling these roles.

### Strategic Outcome and Program Activity Architecture (PAA)

In order to pursue its mandate effectively, the Agency aims to achieve a single strategic outcome of healthier Canadians, reduced health disparities, and a stronger public health capacity supported by its Program Activity Architecture (PAA), depicted in the following figure. In fiscal year 2008-09, the Agency initiated the renewal of its existing PAA to address Management Accountability Framework (MAF) Round V assessment results and address conditions as part of the 2008 Strategic Review approval letter. The 2010-11 PAA and supporting Performance Measurement Framework (PMF) were subsequently approved by Treasury Board in spring-summer 2009.


Strategic Outcome
Healthier Canadians, reduced health disparities, and a stronger public health capacity
Program Activity
Program Sub-Activity
Health Promotion
Healthy Living
Childhood and Adolescence
Aging and Seniors
Injury Prevention
Emerging Priorities in Health Promotion
Chronic Disease Prevention and Control
Public Health Platforms for Chronic Disease Prevention, Early Detection and Management
Diabetes Public Health Prevention, Early Detection and Management
Cancer Public Health Prevention, Early Detection and Management
Cardiovascular Disease Public Health Prevention, Early Detection and Management
Emerging Public Health Priorities in Chronic Disease Public Health Prevention, Early Detection and Management
Infectious Disease Prevention and Control
HIV/AIDS
Pandemic and Avian Influenza Preparedness and Response
Immunization and Respiratory Infections
Communicable Diseases and Infection Control
Foodborne, Waterborne and Zoonotic Diseases
Science and Innovation
Emergency Preparedness and Response
Emergency Preparedness
Emergency Response
Public Health Security
Strengthen Public Health Capacity
Building Public Health Human Resource Capacity
Knowledge-based Information Systems
Public Health Law and Ethics
Internal Services
Governance and Management Support
Resource Management Services
Asset Management Services

## 1.2 Planning Summary

### 2009-10 Financial Resources ($ millions)

| Planned Spending | Total Authorities | Actual Spending |
|---|---|---|
| 653.5 | 1,202.5* | 944.2** |

### 2009-10 Human Resources (Full-Time Equivalents - FTEs)

| Planned | Actual | Difference |
|---|---|---|
| 2,434.9 | 2,558.1 | (123.2)*** |

*Total Authorities were significantly greater than Planned Spending mainly due to new Authorities received to fund the response to the H1N1 pandemic. Other new Authorities that were received included funds for Modernizing Federal Laboratories and funding for collective bargaining.

** PHAC received funding for the H1N1 vaccine and other costs based on the best available information in the summer. However, by fall, the containment of the outbreak was effective which resulted in lower than anticipated costs. Funding Authorities for a new influenza vaccine fill line and the Canadian HIV Vaccine Initiative were moved to future years, which resulted in lower Actual Spending in 2009-10.

***The variance between Planned and Actual FTE Utilization is mainly due to H1N1 influenza pandemic response requirements. This large variance does not depict lower than expected staff additions in some program activity areas due to the continued difficulty in identifying and recruiting appropriately qualified public health professionals.

### Performance Summary

Health Adjusted Life Expectancy (HALE) is a composite measure that attempts to capture a more complete estimate of population health than standard Life Expectancy (LE). It combines age- and sex-specific measures of both health status (morbidity) and mortality into a single statistic. HALE is an estimate of the average number of years that an individual is expected to live in full health by taking into account years lived in less than full health because of illness and/or injury.[1] In general, years lived in ill health are weighted according to severity of illness and injury and overall life expectancy is adjusted to take this into account. By moving beyond mortality data, HALE is meant to measure not just how long people live, but also the quality of their health throughout their lives.

PHAC contributes to increasing HALE in Canada through the Agency's Health Promotion and Chronic Disease Prevention and Control programs. These programs provide federal leadership and support in promoting health, reducing health disparities and the prevention and mitigation of chronic diseases in Canada in collaboration with federal, provincial and territorial (F/P/T) health partners.

**PHAC Facts...**

***HALE at Birth – Top OECD Nations*** **(years)**

| | | |
|---|---|---|
| 1. | Japan | 76 |
| 2. | Switzerland | 75 |
| 3. | Australia | 74 |
| 3. | Iceland | 74 |
| 3. | Italy | 74 |
| 3. | Spain | 74 |
| 3. | Sweden | 74 |
| 8. | **Canada** | **73** |
| 8. | France | 73 |
| 8. | Germany | 73 |
| 8. | Ireland | 73 |
| 8. | Luxembourg | 73 |
| 8. | Netherlands | 73 |
| 8. | New Zealand | 73 |
| 8. | Norway | 73 |

*Source: World Health Organization – World Health Statistics 2010 (2007 data)*

[1] World Health Organization. Healthy life expectancy (HALE) at birth (years) Available from: http://www.who.int/whosis/indicators/2007HALE0/en/ [Accessed May 20, 2010.]

| Strategic Outcome: Healthier Canadians, reduced health disparities, and a stronger public health capacity | | |
|---|---|---|
| **Performance Indicators** | **Targets** | **2009-10 Performance** |
| Health-adjusted life expectancy (HALE) at birth | Canada is among the nations with the highest healthy life expectancy at birth | As of 2001, Statistics Canada reports overall HALE at birth in Canada at 69.6 years. Women have a HALE of 70.8 years and men have a HALE of 68.3 years at birth.[2]<br>Based on World Health Organization (WHO) methodology and using internationally comparable data, the WHO estimates Canada's overall HALE at 73 years in 2007.[3] This puts Canada in a tie with seven other nations for 8th among the 31 OECD nations. The United Kingdom (UK) places in a tie for 16th with a HALE of 72 years and the U.S. 24th with a HALE of 70 years. All three nations have increased their absolute HALE from 2002 numbers[4]; however, their performance relative to other OECD nations is mixed. From 2002 to 2007 the UK rose 3 places from 19th to 16th, Canada maintained its rank of 8th, and the U.S. slipped from 22nd to 24th. |
| The difference, in years, in HALE at birth between the top-third and the bottom-third income groups in Canada | Determine baseline by March 31, 2011 | Canadian men and women in the highest income group have a HALE of 70.5 and 72.3 years as of 2001, respectively. Comparison of HALE across income groups shows that, at birth, women in the highest income group have a HALE that is 3.2 years higher than women in the lowest group. Similarly, men in the highest group have a HALE that is 4.7 years higher than men in the lowest income group.[5] |

**($ millions)**

| Program Activity | 2008-09 Actual Spending | 2009-10 | | | | Alignment to Government of Canada Outcomes |
|---|---|---|---|---|---|---|
| | | Main Estimates | Planned Spending | Total Authorities | Actual Spending | |
| Health Promotion | 200.8 | 194.5 | 194.5 | 184.5 | 180.9 | Healthy Canadians |
| Chronic Disease Prevention and Control | 52.9 | 60.3 | 60.3 | 50.2 | 47.8 | Healthy Canadians |
| Infectious Disease Prevention and Control | 256.1 | 261.3 | 261.3 | 747.2 | 529.3 | Healthy Canadians |
| Emergency Preparedness and Response | 30.9 | 26.8 | 32.3 | 67.8 | 39.2 | Safe and Secure Canada |
| Strengthen Public Health Capacity | 42.1 | 31.1 | 31.1 | 37.8 | 35.5 | Healthy Canadians |
| Internal Services* | — | 74.0 | 74.0 | 114.9 | 111.5 | |
| **Total** | **582.9** | **648.0** | **653.5** | **1,202.5** | **944.2** | |

[2] Statistics Canada. CANSIM Table 102-0121 and Catalogue no. 82-221-X.
[3] World Health Organization. *World Health Statistics 2010*, Table 1. http://www.who.int/whosis/whostat/EN_WHS10_Full.pdf.
[4] World Health Organization. *The World Health Report 2004*, Annex Table 4. http://www.who.int/whr/2004/annex/en/index.html.
[5] Statistics Canada. 37b-HLT: health adjusted life expectancy (HALE) by income. In: Comparable health indicators—Canada, provinces and territories. Ottawa: Statistics Canada; 2001. Catalogue 82-401-XIE. Available from: http://www.statcan.gc.ca/pub/82-401-x/2002000/4064312-eng.htm#2.

*Commencing in the 2009-10 Estimates cycle, the resources for the Internal Services program activity are displayed separately from other program activities: they are no longer distributed among the remaining program activities, as was the case in previous Main Estimates. This has affected the comparability of spending and Full Time Equivalent information by Program Activity between fiscal years.

**Notes:** Total excludes cost of services received without charge. Due to rounding, there may be insignificant variances.

H1N1 influenza emerged in April 2009 and accounted for most of the $549M increase in the Agency's Total Authorities. Funding received for the Operating Budget Carry-Forward from 2008-09, collective bargaining agreements, non-controllable salary costs (i.e., severance pay, parental benefits and vacation credits payable after termination of employment with the public service), and Modernizing Federal Laboratories (part of Canada's Economic Action Plan) were other factors accounting for the difference between Planned Spending and Total Authorities.

PHAC received funding for the H1N1 vaccine and other costs based on the best available information in the summer. However, by fall, the containment of the outbreak was effective which resulted in lower than anticipated costs. Funding Authorities for a new influenza vaccine fill line and the Canadian HIV Vaccine Initiative were moved to future years, which resulted in lower Actual Spending in 2009-10.

## Contribution of Priorities to Strategic Outcome

| Operational Priorities (Type) | Status | Linkages to Strategic Outcome |
|---|---|---|
| Enhance surveillance (New) | Somewhat met | PHAC has made continued and significant progress in implementing the recommendations of the May 2008 OAG *Report on the Surveillance of Infectious Diseases*. To date, eight of the 12 recommendations are either fully or substantially implemented. Plans and timelines are in place for the remaining four.<br><br>The Agency has: developed new data sources and continued data analysis for a comprehensive national chronic disease surveillance system; improved the Agency's internal response capacity; and developed and implemented an Incident Management Structure. The Agency is actively integrating Panorama[6] into existing surveillance systems and has fully adopted the governance structure of the PHAC Surveillance Strategic Plan 2007-2012. Mechanisms and processes for managing surveillance issues and product development have been developed, approved, and implemented based on objectives and priorities defined in the Agency's Surveillance Strategy Framework 2007-2012.<br><br>The demand placed on Agency resources by the H1N1 influenza pandemic delayed progress on enhancing national child health surveillance for congenital anomalies, developmental disabilities and disorders, and product-related injuries as well as vaccine preventable disease surveillance. |

[6] A public health surveillance system under development and funded by Canada Health Infoway.

| Operational Priorities (Type) | Status | Linkages to Strategic Outcome |
|---|---|---|
| Disease prevention and control (Ongoing) | Mostly met | The Agency takes many different approaches to disease prevention and control, from research and genetic sequencing to public awareness campaigns. For infectious disease, the Agency continues to develop novel genetic biomarkers that will lead to earlier detection, enhanced monitoring and more targeted action to improve public health through the identification of vulnerable subpopulations.<br><br>It continues to research and disseminate knowledge regarding sexually transmitted and blood-borne infections through a collaborative working group. And, Agency scientists have developed new methodologies to perform HIV drug-resistant testing, making these important tests more accessible and less expensive.<br><br>With respect to chronic diseases, the Agency has taken a multi-pronged approach to the prevention of major chronic diseases such as diabetes, cancer, cardiovascular diseases, and respiratory illness. It has developed and disseminated new risk assessment tools and a breast cancer screening decision aid, and has launched multi-year initiatives to increase awareness of prevention, early detection, and self-management of lung diseases via public information products.<br><br>All the Agency's activities involve building partnerships and mobilizing stakeholders from municipal to international levels. The Aids Community Action Program builds partnerships and funds initiatives at grassroots levels, and the Agency actively participates in and leads international initiatives such as the Noncommunicable Disease and Mental Health Cluster and the International Cancer Screening Network. |
| Review of the federal approach to immunization, with a view of strengthening the National Immunization Strategy (NIS) (New) | Somewhat met | One of the planned activities for the Agency in 2009-10 was to review how best to improve the effectiveness and efficiency of the NIS. The policy research and analysis phase of this review was undertaken throughout 2009-10 and was aimed at identifying viable approaches to address immunization-related challenges. Some of these challenges relate to vaccine uptake, safety and supply, while others are of a more cross-cutting nature, such as program research and evaluation, surveillance, and governance. The NIS review is projected to be completed in fiscal year 2010-11. |

| Operational Priorities (Type) | Status | Linkages to Strategic Outcome |
|---|---|---|
| Emergency preparedness for disease outbreaks including pandemic influenza (Ongoing) | Mostly met | The successful passing of the *Human Pathogens and Toxins Act* and the immediate coming into force of certain provisions of the Act furthered PHAC's ability to reduce the risk, and be better empowered to deal with incidents of disease arising from the improper laboratory handling of human pathogens by regulating pathogens and toxins whether imported or domestically acquired. An accountability and reporting structure has been established and a detailed five-year project plan is in place to develop a program and regulatory framework to fully implement the Act in consultation with stakeholders, provinces and territories.<br><br>By preparing for full compliance with and supporting the World Health Organization's work toward establishing international public health emergency standards by June 2012, PHAC advanced progress towards preventing and mitigating disease and injury during domestic and international public health emergencies. Further, the Agency's emergency preparedness activities advanced its strategic outcome through: screening and control of public health risks via quarantine activities at ports of entry into and out of Canada; 24/7 health emergency response and surge capacity; improved availability and access to a modernized emergency medical supply stockpile; and *International Health Regulation* (*IHR*) 2005-compliant Operations Centres affecting timely and coordinated response to public health emergencies.<br><br>The Agency and its domestic health partners have been active in strengthening domestic and global partnerships so Canada can continue to meet its *IHR* 2005 obligations. It has created a national network of IHR Champions which functions as a coordinating and monitoring mechanism for national implementation activities and implementation strategy development. |
| Transformation of Grants and Contributions (New) | Somewhat met | The Agency has implemented a number of initiatives to improve the manner in which Grants and Contributions (Gs&Cs) cause transformational change in public health such as: Risk Management and Recipient Audit policies and tools to strengthen the delivery of Gs&Cs; updated Standard Operating Procedures to comply with Treasury Board's Policy on Transfer Payments (2008); and the adoption of Principles of Transformation as a goal of Gs&Cs awarded.<br><br>This Agency-wide approach to modernizing the delivery of Gs&Cs is setting the stage for improved alignment with PHAC's mandate and public health priorities. |

## Risk Analysis

The Public Health Agency of Canada is committed to achieving its Strategic Outcome and delivering on priorities in the context of new and emerging trends and challenges that may negatively impact the Agency's ability to fulfill its mandate. These challenges emerge from an environment characterized by: an unprecedented pace of change in population demographics; uncertainties in the global economy; a changing climate; science and technology; intergovernmental and non-governmental partnerships; and growing expectations from Canadians to be responsive to public health events and emergencies. Within the context of such a dynamic operating environment, PHAC continues to invest and evolve in order to ensure that it is able to effectively respond to shifting, emerging and immediate priorities, and deliver results to Canadians.

*Demographic Change*

PHAC's approach to mitigating the risks of demographic change in Canada is to develop specialized programming for each target population. While there is necessary overlap in the target populations, the Agency's activities can be generally classified as programs for children and families, the elderly, and rural and remote communities including Aboriginal populations. Emphasis is placed on preventative health care and increasing healthy living knowledge to mitigate health risks for children and rural and remote communities. For example, the Canadian Prenatal Nutrition Program and the Community Action Program for Children funded intervention programs for children and the community to promote health and social development such as the School Travel Planning project. As well, PHAC funded Aboriginal Head Start in Urban and Northern Communities (AHSUNC)

developed culturally appropriate recipe guides, parenting programs and academic and social skills National School Readiness Assessment Tool. Successfully piloted for AHSUNC participants in the Northwest Territories, the tool will be rolled-out nationwide in September 2010. To address specific health risks for the growing elderly population in Canada, the Agency is focussing on preventing falls, building elder-friendly communities, increasing awareness of elder abuse, and developing a greater understanding of the risk profile of elderly drivers.

*Agriculture and Environmental Risks*

The Agency is also incorporating agriculture and environmental determinants in research activities as it employs a holistic approach to mitigating risks associated with changing demographics and vulnerable populations. Analyzing human genome-based risks, the Agency developed approaches to prevent adverse health outcomes of infectious and chronic diseases. It is developing genome-based biomarker tools that will lead to earlier detection, enhanced monitoring and action through targeted community risk prevention activities. The Agency's preventative risk approach includes providing the public health lens to a United Nations Action Team 6 that focuses on the application of space technologies in the early warning of infectious diseases.

The effects of climate change and its impact on public health continue to be addressed through research on enhanced surveillance systems and decision tools specific to climate-related diseases, such as the National West Nile Virus Surveillance System.

*Chronic Disease Prevalence*

The Agency is actively building knowledge and sharing best practices in chronic disease prevention and control. PHAC scientists were at the forefront of an expert panel that definitively linked active and second-hand smoke to breast cancer in women. Of note, the Agency produced the first nation-wide report on heart disease in Canada since 2004. Information gathered from surveillance activities demonstrates—in every age group—that more than one in two Canadians consume more than the recommended tolerable intake of sodium.[7] The Agency is also developing risk assessment screening tools for cancer and diabetes, and enhancing knowledge on the emerging public health implications of widespread obesity.

*Utilizing Science and Technology*

Innovations in science and technology amplify the availability of public health information and health options from a multitude of sources. This helps mitigate the risk of under-informed policy response and preventative care approaches to infectious disease. The Agency's Global Public Health Intelligence Network (GPHIN) was one of the first surveillance networks to detect and disseminate details on the H1N1 outbreak. GPHIN provided PHAC and its international partners with accurate and timely information in order to help mitigate the impact of the pandemic. The Agency's National Microbiology Laboratory (NML)—the World Health Organization's (WHO) National Influenza Center for epidemiology and control of influenza in Canada—has been in the forefront of this research effort. It was one of the first laboratories to complete and share the genetic sequencing of both the Mexican and Canadian strains of the virus. The NML performed vaccine efficacy studies in collaboration with F/P/T laboratories and utilized genotyping, genomic fingerprinting and bioinformatics procedures for characterizing H1N1 and its evolution.

*Pandemic Planning and Infectious Diseases*

The Agency is also pursuing reduced risk of serious illness and death from pandemic influenza. As part of the F/P/T response to the H1N1 outbreak a platform for real-time surveillance and monitoring of pandemic influenza associated pneumonia was developed. To reduce the risk of serious illness and death from acquiring long-term infectious disease, the Agency is advancing HIV knowledge and prevention through augmented HIV and risk behaviour surveillance programs.

*Privacy Concerns*

To reduce the risk that individuals' right to privacy could be eliminated through advancements in science, technology and surveillance activities, the Agency has developed a Privacy Management Framework. Initial steps towards full implementation of the framework include a Web-based tool for assessing the privacy impact of surveillance activity and the integration of the Policy on the Collection, Use and Dissemination of Public Health Data.

*Partnerships*

The horizontal cross-cutting nature of public health creates the risk of gaps in public health policy and programming, and of overlaps stemming from poor communication or lack of communication among stakeholders. To mitigate this ever-present risk, the Agency participates in and leads multi-stakeholder fora domestically and internationally. Domestically, the Health Portfolio

[7] 1500 mg/day is considered adequate for good health in adults. The tolerable upper intake level is 2300 mg/day.
http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/sodium-eng.php.

Operations Centre (HPOC) manages the joint response of Health Canada and the Agency to major public health events. With the capacity to operate 24/7, HPOC produces and distributes a number of communication and operational products, day to day and during periods of activation, that serve to provide situational awareness to stakeholders. At the operational level, the Agency has initiated discussions with regulatory bodies on inter-jurisdictional licensing of health professionals to mitigate the risk of insufficient public health capacity at a time of crisis.

Agreements at the operational level supplement the Agency's establishment of the Central Repository of Emergency Response Agreements as identified in *Lessons Learned: Public Health Agency of Canada's Response to the 2008 Listeriosis Outbreak*. The repository provides Agency employees with accessible, up-to-date emergency response partner contact information. This is one example of how the Agency is using the lessons learned report and input from other sources to strengthen its ability to respond to future public health emergencies. Additional success in stakeholder relations and communications is contained in the Government of Canada progress report titled *Government of Canada - Progress on Food Safety*. This report provides details of the progress made by Health Canada, PHAC and the Canadian Food Inspection Agency (CFIA) on reducing food safety risks, enhancing surveillance and early detection, and improving emergency response. It includes the development of a risk communications strategy involving social networking media and audio-video webcasts, a collaborative Foodborne Illness Outbreak Response Protocol, and an incident command structure for improved coordination and capacity.

*Social Media*

PHAC mitigated the risk of inadequate communication with the general public by actively participating in the newest media fora. PHAC utilized communications technology and multiple media fora to provide timely and accurate information to Canadians, and support and inform decision-making. For example, the Agency's Web site was enriched with search optimization to provide real-time data and automated H1N1 updates. Unique visits to the site increased by 70 percent in 2009 versus 2008 with seven million of the 15.3 million unique visits related to H1N1 content. Even greater increases in exposure were realized with PHAC's Facebook page and Twitter activity. As of April 1, 2009, PHAC had 125 fans on Facebook; on March 31, 2010, PHAC had 2,323 fans, predominantly females aged 25-44. And by March 31, 2010, the Agency's Twitter followers totaled 2,186. To highlight the vast reach of this community, PHAC's presence on Facebook produced 50,000 referrals to the Web site during H1N1.

*Global Economics and Security*

Recent economic instability in world financial markets created both opportunities and threats to Canadian public health. Low travel prices and economic disparity overseas created the conditions for increased immigration and travel to and from Canada. These conditions reinforced and confirmed PHAC's past decision to provide a 24/7 quarantine service to contribute to protecting Canadians from ill international travelers.

To mitigate and ultimately eliminate the risks of security breaches such as that which occurred at the National Microbiology Laboratory in 2009, the Agency has updated its security screening process to meet the requirements of the *Treasury Board Secretariat* (TBS) *Policy on Government Security* (PGS) (July 1, 2009). Wait times for security clearances have been reduced considerably. However, several areas require attention, or would benefit from enhancements in order to ensure full compliance with the PGS and associated TBS Standards.

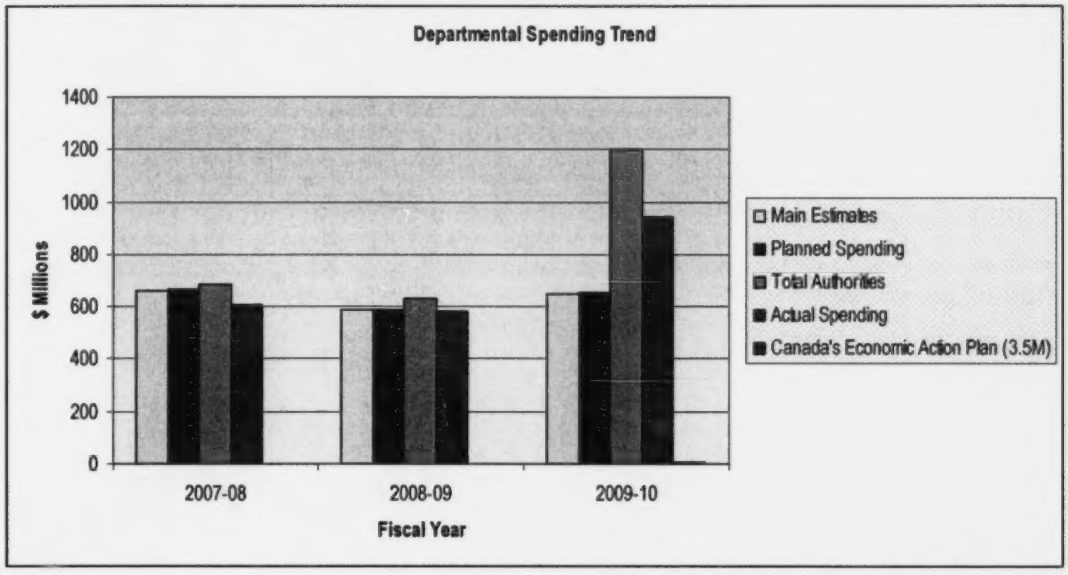
As a result of the federal government's decision to purchase vaccines and antivirals in bulk to enhance preparedness to respond to avian influenza and pandemic influenza, the Agency acquired additional physical space to house the National Emergency Stockpile System's (NESS) valuable and sensitive assets. To enhance availability of these assets to Canadians in times of need, the NESS warehouses and distribution depots are secured in accordance with the TBS Operational Security Standard on Physical Security, RCMP guidelines, and additional measures identified through site security design and Threat Risk Assessments.

## Expenditure Profile

In 2007-08, the Agency's spending was slightly higher than in 2008-09 due to the purchase of antivirals and personal protective equipment to augment national stockpiles for the Preparedness for Avian and Pandemic Influenza Initiative. In 2008-09, funding for Vaccine Readiness Fees and National Antiviral Strategy was re-profiled for future years to align with the anticipated expenditure.

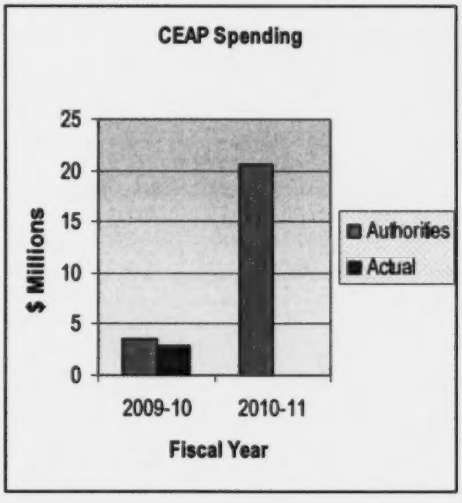
In 2009-10, Canada experienced an H1N1 outbreak in the spring and fall which accounted for most of the additional $361.3M spending. This additional spending was for the purchase of vaccines and pandemic response activities. The Agency also spent $49.7M on the Hepatitis C Health Care Services Program which provides funding to the provinces and territories to compensate for the care of individuals infected with hepatitis C through the blood system. As well, the Agency received funding to: assist with the installation of a domestic vaccine fill line; establish a stronger safety and security regime to protect the health and safety of

the public against the risks posed by human pathogens and toxins; and address the recommendations made in the *Report of the Independent Investigator into the 2008 Listeriosis Outbreak*.




## Canada's Economic Action Plan

In April 2009, an expansion of the Canadian Science Centre for Human and Animal Health (CSCHAH)—which serves PHAC's National Microbiology Laboratory and the Canadian Food Inspection Agency's National Centre for Foreign Animal Disease—was approved as part of Canada's Economic Action Plan (CEAP). This was in response to a lack of physical space at CSCHAH and is consistent with Budget 2009 priorities, specifically Modernizing Federal Laboratories. The CSCHAH renovations will provide additional space to support waste management, specimen receiving, culture media preparation, stores, shipping/receiving, and real property safety and security activities within the CSCHAH. Authorities for the project were $3.5M in 2009-10 with actual spending of $2.9M. For a more complete discussion of CEAP spending, see Section 2.2.



## Voted and Statutory Items ($ millions)

| Vote # or Statutory Item (S) | Truncated Vote or Statutory Wording | 2007-08 Actual Spending | 2008-09 Actual Spending | 2009-10 Main Estimates | 2009-10 Actual Spending |
|---|---|---|---|---|---|
| 40* | Operating expenditures | 393.3 | 371.3 | 352.7 | 652.8 |
| 45* | Capital expenditures | — | — | 9.6 | 14.3 |
| 50* | Grants and Contributions | 188.7 | 184.2 | 255.4 | 242.9 |
| (S) | Contributions to employee benefit plans | 24.9 | 27.3 | 30.3 | 34.2 |
| **Total** | | **606.9** | **582.9** | **648.0** | **944.2** |

*Effective in 2009-10, the Agency had a new Vote for Capital expenditures. In 2007-08, Votes 40 and 50 were numbered Votes 35 and 40. In 2008-09, Votes 40 and 50 were numbered Votes 40 and 45.

Actual spending in operating expenditures was higher in 2009-10 than in 2008-09 mainly due to H1N1-related expenditures as well as funding to address Human Pathogens and Listeriosis.

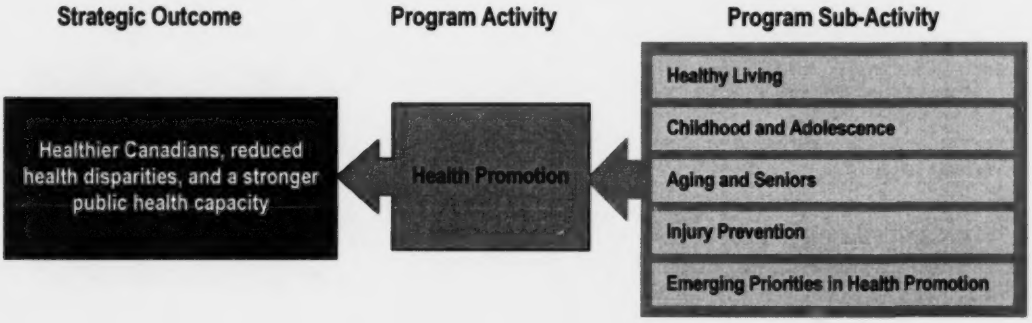
Actual spending in Grants and Contributions was greater in 2009-10 by $58.7M mainly due to $49.7M that was paid to the provinces/territories under the Hepatitis C Health Care Services Program which occurs once every five years until 2014-15. Additionally, a greater level of funding to recipients was achieved in 2009-10 than in 2008-09 because of improved processes.

# Section II – Analysis of Program Activities by Strategic Outcome

## 2.1 Strategic Outcome

The Agency's Strategic Outcome is healthier Canadians, reduced health disparities, and a stronger public health capacity. The following section describes the six program activities through which the Agency works to achieve the Strategic Outcome, and identifies the expected results, performance indicators and targets for each activity. This section also explains how the Agency achieved the expected results and presents the financial and human resources dedicated to each program activity.

### 2.1.1 Program Activity – Health Promotion




| Financial Resources ($ millions) 2009-10 | | |
|---|---|---|
| Planned Spending | Total Authorities | Actual Spending |
| 194.5 | 184.5* | 180.9** |

| Human Resources (Full-Time Equivalents/FTEs) 2009-10 | | |
|---|---|---|
| Planned | Actual | Difference |
| 567.0 | 539.3 | 27.7*** |

*Total Authorities were less than Planned Spending mainly because funding was transferred to other Program Activities where the related expenditures were made. The overall Agency budget did not change as a result of these transfers.

**Actual Spending was $3.6M lower than Total Authorities mainly due to delays in staffing, internal reallocations to address corporate pressures such as H1N1, and delays in the solicitation process for Transfer Payments.

***Staffing delays caused lower utilization of Actual FTEs than Planned as a result of the Agency focus on responding to the H1N1 influenza pandemic and the difficulty in identifying and recruiting appropriately qualified public health professionals.

**Program Activity Expected Results:**

- Canadians have increased awareness and knowledge of health and well being, the factors that influence these, and how they can play a role in improving and maintaining their health and that of their families and communities.
- Canada has expert knowledge of the conditions that lead to inequalities in health among Canadians and has the infrastructure (e.g., policies, practices) to reduce them.

| Performance Indicator(s) | Target | Performance Status | Performance Summary |
|---|---|---|---|
| Knowledge, practice and policy documents produced and distributed to improve the health and well | Establish baseline by March 31, 2010 | Met all<br><br>Baseline is established at 204 | PHAC disseminated 204 knowledge, practice and policy documents to individuals, health professionals, policy makers, researchers, educators, and families who contribute directly and indirectly to the creation of supportive environments and health promoting policies that enable Canadians to maintain |

| | | | |
|---|---|---|---|
| being of vulnerable groups (e.g., seniors, children, Aboriginal peoples) and/or support and inform healthy public policy and practice | | | and improve their health. These documents related to children and youth, family violence prevention, seniors, physical activity and the promotion of healthy weights, mental health promotion and mental health literacy, health inequalities, and the social determinants of health. |
| External cross-government and cross-sectoral collaborations to address health and public health, common determinants of health and/or social well-being | Establish baseline by March 31, 2011 | Somewhat met | PHAC engaged in 108 national, inter-sectoral, government and international collaborations to improve public health, increase knowledge and understanding, and to develop coordinated and coherent approaches to address health equity, related determinants of health and/or social well-being.<br><br>Additional public health issues examined in cross-government and cross-sectoral collaborations included the prevention of family violence, promotion of mental health, and advancing knowledge related to seniors such as: building age-friendly communities; participating in the Federal Elder Abuse Initiative; falls prevention; older drivers; and emergency preparedness.<br><br>Further work will be undertaken to establish the appropriate baseline. |
| Canadians participating in health promotion programs, activities and initiatives | Establish baseline by March 31, 2011 | Somewhat met | PHAC promoted health and healthy living directly and indirectly to reach over 660,000 Canadians.[8] An estimated 37,000 parents, caregivers, and children six years of age and under facing conditions of risk participated in the Community Action Program for Children in a typical month. An estimated 18,000 pregnant and postnatal women participated in the Canada Prenatal Nutrition Program.[9] Forty-five hundred children six years and under participated in 126 Aboriginal Head Start in Urban and Northern Communities sites. Six hundred forty-seven health and allied professionals participated in Fetal Alcohol Spectrum Disorder initiatives, including project development and training workshops.<br><br>Further work will be undertaken to establish the appropriate baseline. |

**Benefits for Canadians**

Through its policies, programs, and activities, the Agency furthered knowledge development and built the evidence required to support health promotion strategies, so as to influence policy and action to reduce health inequalities and increase the overall health of Canadians.

In particular, PHAC's knowledge, tools, and resources help Canadians lead healthier lives by promoting topics such as physical activity and healthy eating; positive mental health; injury prevention and safety; children's health and well-being in Canada and abroad; and healthy aging/Age-Friendly initiatives across Canada.

[8] This number is consistent with previous years. Healthy Living Fund participants increased from 104,300 in the first six months of 2007-08 to 137,084 in 2009-10.

[9] This number is exclusive of 123 projects in Quebec that do not complete participant surveys.

**Performance Analysis**

PHAC continues to contribute evidence for policy and program decision-making on children's health and well-being in Canada and internationally by providing foundational tools and resources that can be used to assess new policies and programs from a child health and child rights perspective. The Agency is a national partner for AboutKidsHealth, a Web site created and operated by The Hospital for Sick Children in Toronto to provide health-care professionals, parents and children with comprehensive, authoritative and accessible information on children's health. PHAC's support helps AboutKidsHealth efforts to build partnerships across Canada and better serve rural, northern, and Aboriginal populations. The Agency also facilitates knowledge translation and exchange through programs such as the Aboriginal Head Start in Urban and Northern Communities (AHSUNC) National Strategic Fund (NSF). The AHSUNC NSF provided funding for an Inuit Early Childhood Education Conference, as well as cultural and nutrition products. *Our Food, Our Stories–Celebrating our Gifts from the Creator*[10] includes nutritious recipes and pictures reflecting each culture and identity of nations, a holistic curriculum for a Traditional Aboriginal Parenting Program, and training on a National School Readiness Assessment Tool. This tool was used to measure school readiness in AHSUNC participants in the North West Territories and indicated that participants realize higher academic standing and greater social skills development. The tool has also shown that graduates maintain their progress and gains made during the AHSUNC program. It will be extended nationwide in September 2010.

The Canada Prenatal Nutrition Program (CPNP) and the Community Action Program for Children (CAPC) provided funding to community-based groups and coalitions to develop and deliver comprehensive, culturally appropriate prevention and early intervention programs to promote the health and social development of pregnant women, infants, children (0-6 years) and their families facing conditions of risk. Five projects funded under the CPNP and the CAPC's National Projects Fund focused on: developing resources and training to promote the mental health of mothers and reduce maternal depression, improving our understanding of the effects of exposure to toxic chemicals and other hazards in the physical environment on prenatal and child health, addressing childhood obesity, preventing injury in children, and helping mothers reduce or quit smoking.

Determining and communicating the risks to pregnant women and infants from the H1N1 vaccine became an important priority for the Agency during the pandemic. Progress in implementing the deliverables stemming from the 2008 Health and Environment Initiative and Consumer Safety Action Plan (enhancing national child health surveillance for congenital anomalies, developmental disabilities and disorders and product related injuries) was therefore delayed. Despite this delay, knowledge developed and experience gained from H1N1 will make important contributions to future maternal health and child health surveillance.

**PHAC Facts...**

Evaluations of the CAPC and CPNP indicated that both programs were effective in promoting the health of at-risk pregnant women, infants and their families. Participants reported improved use of vitamin-mineral supplements, cessation of alcohol consumption, increased initiation and duration of breastfeeding, and decreased likelihood of low birth weight infants and preterm births along with improved child development outcomes, community capacity and personal parental improvement. Evaluations also indicated that CAPC continued to be relevant to the Canadian context and reaches the vulnerable populations (i.e., pregnant women, children and families living in conditions of risk), and contribute to their health and social development. Regional community based projects (CAPC, CPNP and AHSUNC) have been extended until March 31, 2012.

The Agency also contributed to the development of an evidence base of promising practices in community mobilization around Fetal Alcohol Spectrum Disorder (FASD), particularly for communities with scarce resources. It participated in the Canadian Northwest FASD Partnership, an alliance of partners in the development and promotion of an inter-provincial/territorial approach on the prevention, intervention, care and support of individuals affected by FASD. PHAC worked in collaboration with the Partnership's Research Network to build the Canadian evidence base by developing and sharing tools for clinical practice, FASD prevention, and the interventions required to assist those living with FASD.

PHAC worked with provinces, territories, and other stakeholders to advance efforts on healthy living for Canadians and to reverse the trend towards childhood obesity. With its health portfolio partners, PHAC reviewed evidence and international approaches to determine priority areas for action to counteract overweight and obesity in Canada.

The Healthy Living Fund (HLF) made strategic investments to address the conditions that lead to unhealthy eating, physical

**PHAC Facts...**

The built environment, (e.g., buildings, parks, schools, road systems, and other infrastructure), is a key determining factor to promote physical activity and prevent obesity. PHAC encouraged the use of health promoting features in land use and community planning with the release of its report in collaboration with the intersectoral Healthy Living Issue Group entitled *Bringing Health to the Planning Table: a Profile of Promising Practices in Canada and Abroad*.

[10] Aboriginal Head Start Association of British Columbia (AHSABC). *Our Food, Our Stories–Celebrating Our Gifts from the Creator*. 2009. Copies of this book are available from AHSABC at 250-858-4543 or www.ahsabc.com.

inactivity and unhealthy weights. Projects supported aim to reduce health disparities by focusing on vulnerable populations and related settings for action. Several projects funded by the HLF took innovative approaches to reducing barriers to physical activity for children and youth. For example, Canada Gets Active is a national community mobilization project that brings together community partners to provide free access to recreation facilities for Grade 5 students. The HLF also supported the development of environments that help make healthy choices easier ones to make, through such projects as the innovative School Travel Planning project of Green Communities Canada, which is designed to increase active travel to and from school.

Key activities implemented to support comprehensive and coordinated actions to integrate equity (including sex- and gender-based analysis) into public health research, policy and action included: the development of A Framework to Guide Public Health Agency of Canada Action to Reduce Health Inequities; equity-focused health impact assessment tools; and renewal of the multi-sectoral Canadian Reference Group on the Social Determinants of Health.

**PHAC Facts...**
An evaluation of the Healthy Living Program (HLP) — which includes the HLF — indicated that it was relevant, necessary and generally well designed. The evaluation indicated that the HLP reached vulnerable populations, facilitated changes in knowledge and behaviour related to healthy eating and physical activity among target populations, and contributed to a reduction in specific barriers to physical activity and healthy eating in the community.

The Agency implemented the first cycle of the Innovation Strategy through funding of innovative and multi-sectoral interventions to address inequalities in mental health and related determinants. The development of the second cycle to address health inequalities through the promotion of healthy weights is currently underway. A key objective of the Strategy is to enhance practice-based evidence of effectiveness and disseminate this information to public health practitioners.

In addition, PHAC provided ongoing co-chair and secretariat support for the F/P/T Population Health Promotion Expert Group of the pan-Canadian Public Health Network, and was actively engaged in the release of their report entitled *Indicators of Health Inequalities: A report from the Population Health Promotion Expert Group and the Healthy Living Issue Group for the Pan-Canadian Public Health Network*. The indicators presented in this document can be used to measure the level of health inequalities in Canada and changes over time, and will form the basis of the first pan-Canadian report on health inequalities.

With respect to seniors, PHAC has been actively promoting the implementation of the Age-Friendly model throughout Canada. The Age-Friendly Communities project seeks to engage older Canadians and their communities in making communities better, healthier and safer places for seniors to live and thrive. Since embracing the Age-Friendly model, over 100 communities of varying sizes in Canada have embarked on Age-Friendly initiatives.

PHAC and the University of British Columbia's Injury Research and Prevention Unit supported the Canadian Falls Prevention Curriculum (Accredited) Project. A first of its kind in Canada, the Curriculum taught health professionals and community leaders how to design, implement, and evaluate fall prevention programs for vulnerable older persons. The Curriculum has been well-received across the country; license agreements have been signed with almost all provinces. The workshop version of the course has been offered over 70 times across the country to approximately 1,400 participants. The E-Learning version has also proven to be very popular, and was internationally recognized in 2009 with a Brandon Hall Bronze Award for Best Custom Content.

**Lessons Learned**

There is a need for more comprehensive economic analysis to inform and influence healthy public policy. Recent evidence found that some upstream preventive health interventions with a focus on social determinants of health result in cost-saving for the health system and many others are cost-effective.[11] Based on this evidence, the Agency plans to develop a framework and guidelines for assessing the cost effectiveness of upstream interventions in the next fiscal year.

Some areas of the Health Promotion Programs require improved processes for project management, monitoring and reporting. These include activities such as: setting program and funding priorities; renewing and amending ongoing projects; adequately overseeing and monitoring projects to minimize financial and non-financial risk to the Agency; and measuring and reporting the results of the projects and programs that PHAC supports.[12] The Management Response and Action Plan of the Health

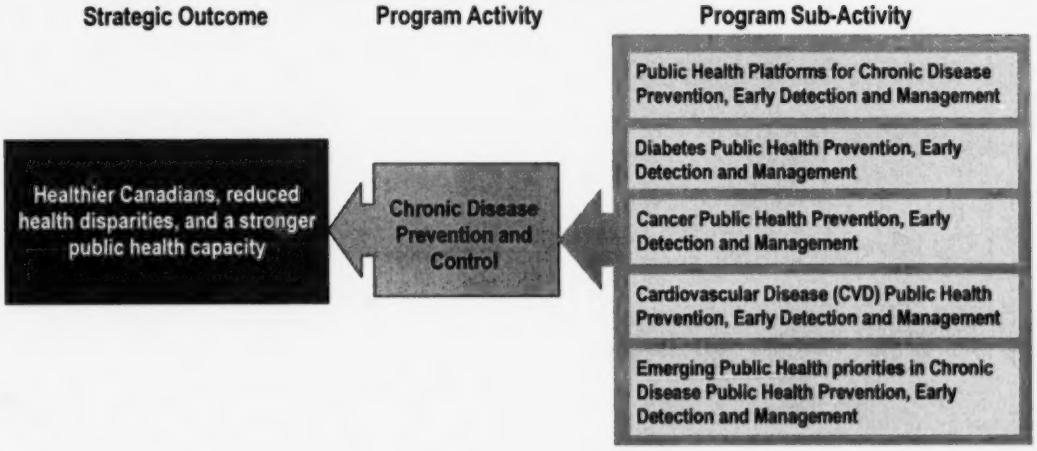
[11] *Investing in Prevention – The Economic Perspective Key Findings from a Survey of the Recent Evidence*, http://www.phac-aspc.gc.ca/ph-sp/new-neuf-eng.php.
[12] Audit of Health Promotion Programs, Public Health Agency of Canada Internal Audit. http://www.phac-aspc.gc.ca/about_apropos/audit/reports09-eng.php#hpp.

Promotion Audit outlines the actions taken to address these matters and to strengthen the Health Promotion contribution to healthy Canadians by improving efficacy and efficiency.

PHAC's activities benefit from early, consistent and meaningful collaboration with other government departments, provinces and territories, university-based researchers, health and social service professionals, non-governmental organizations (NGOs), the private sector and youth. Advancing public health goals requires participation from all sectors, and cooperation on youth health initiatives will mean reaching a larger audience and maximizing results. The association between youth participation, reduced risk behaviours, and improved health outcomes[13] indicates that decision-makers need to take action to foster partnerships across sectors which support more meaningful engagement of youth, including the utilization of new technologies which play a greater role in the lives of today's youth.

[13] *Youth Engagement and Health Outcomes: Is there a Link?*, http://www.engagementcentre.ca/files/litreview1_web_e.pdf.

## 2.1.2 Program Activity – Chronic Disease Prevention and Control


Strategic Outcome
Program Activity
Program Sub-Activity
Healthier Canadians, reduced health disparities, and a stronger public health capacity
Chronic Disease Prevention and Control
Public Health Platforms for Chronic Disease Prevention, Early Detection and Management
Diabetes Public Health Prevention, Early Detection and Management
Cancer Public Health Prevention, Early Detection and Management
Cardiovascular Disease (CVD) Public Health Prevention, Early Detection and Management
Emerging Public Health priorities in Chronic Disease Public Health Prevention, Early Detection and Management

| Financial Resources ($ millions) 2009-10 | | |
|---|---|---|
| Planned Spending | Total Authorities | Actual Spending |
| 60.3 | 50.2* | 47.8** |

| Human Resources (Full-Time Equivalents/FTEs) 2009-10 | | |
|---|---|---|
| Planned | Actual | Difference |
| 237.4 | 218.0 | 19.4*** |

*Total Authorities were lower than Planned Spending mainly because some authorities were transferred to other Program Activities where the related expenditures were made. The overall Agency budget did not change as a result of these transfers.

**Actual Spending was lower than Total Authorities mainly due to delays in finalizing or implementing collaborative arrangements such as the Memoranda of Agreement for the Childhood Cancer System and funding for the National Population Health Study on Neurological Conditions. Work in both of these areas is ongoing. Furthermore, the Agency experienced considerable difficulty in identifying and recruiting appropriately qualified public health professionals and reallocated resources to focus on the H1N1 response.

***Staffing delays caused lower utilization of Actual FTEs than Planned as a result of the Agency's focus on responding to the H1N1 influenza pandemic and the difficulty in identifying and recruiting appropriately qualified public health professionals.

**Program Activity Expected Result:**

- Canadians have access to science-based, authoritative and timely information and tools to support informed decision-making on preventing chronic diseases and decreasing health risks.

| Performance Indicator(s) | Target | Performance Status | Performance Summary |
|---|---|---|---|
| Diseases tracked and reported | Establish baseline by March 31, 2010 | Met all<br><br>Diabetes: 6.7 per 1,000 population (2006-07)[14]<br><br>Cancer: 400 per 100,000 | In order to establish a baseline for tracking and reporting on diseases, the Agency collected, analysed, interpreted and reported data on trends for major chronic diseases – cancer, diabetes and hypertension. PHAC issued the annual surveillance report on national diabetes trends and their public health implications; provided analyses of surveillance data for the annual report on national cancer statistics; periodically published comprehensive |

[14] Public Health Agency of Canada. *Report from the National Diabetes Surveillance System: Diabetes in Canada, 2009*, p. 2. Available online. [Accessed June 7, 2010.]

| | | | |
|---|---|---|---|
| | | population (2006)[15]<br><br>Hypertension: 22.1 per 1,000 population (2006-07) | surveillance reports on specific diseases (e.g., heart disease); and published the biannual report on the performance of breast screening programs in Canada. As a result, the baseline incident rates (i.e., age-standardized new diagnoses) have been established for tracking and reporting those three diseases.<br><br>The development of chronic disease surveillance data is ongoing, and will contribute to the establishment of a national picture of chronic disease incidence. Future activities aim to improve tracking and reporting of other chronic diseases such as asthma, chronic obstructive pulmonary disease, arthritis and others. |
| Chronic diseases for which risk factors are established | Establish baseline by March 31, 2010 | Met all<br><br>In 2009, the:<br><br>self-reported prevalence of daily smoking is 18%[16]<br><br>self-reported prevalence of physical inactivity is 47%<br><br>self-reported prevalence of persons consuming less than five fruit and vegetable portions daily is 54%<br><br>self-reported prevalence of people responding that they experience "quite a bit" or "extremely high" stress is 31%<br><br>prevalence of obesity is 24%[17] | The Agency has started to track more than 20 chronic disease risk factors such as tobacco, physical inactivity, nutrition, stress, weight and obesity.[18]<br><br>A notable report published by the Agency was *Tracking Heart Disease and Stroke in Canada*, This report contains detailed breakdowns of sodium intake by age and sex. It notes that regardless of sex or age group, greater than one in two individuals consumed more than the recommended tolerable intake of sodium. [19]<br><br>In addition, PHAC scientists led the development of the *Canadian Expert Panel on Tobacco Smoke and Breast Cancer Risk* report, released in April 2009, which received widespread Canadian and international media attention. The Expert Panel was the first to synthesize the evidence that concluded that active smoking was a risk factor for breast cancer and reconfirmed secondhand smoke as a risk factor for breast cancer. |

[15] Public Health Agency of Canada. Cancer Incidence over Time – All Cancer Sites including In Situ for Bladder, Both Sexes Combined, All Ages, Canada, 1992-2006. Cancer Surveillance On-Line. [Accessed May 12, 2010.]

[16] Health Canada. Canadian Tobacco Use Monitoring Survey (CTUMS), Smoking Prevalence 1999-2009: Annual, 2008. Health Concerns, Tobacco, Tobacco Use Statistics. [Accessed August 4, 2010.]

[17] The self-reported prevalence of obesity (18 percent in 2009) is known to be an underestimate of obesity rates. Correcting for this bias, the prevalence of obesity in 2009 is approximately 24 percent.

[18] Public Health Agency of Canada. Chronic Disease Official Statistics Pilot. Health Status Indicators - Risk Factor Prevalences – Internal Database. Surveillance Division, Centre for Chronic Disease Prevention and Control. [Accessed August 4, 2010.]

[19] 1500 mg/day is considered adequate for good health in adults. The tolerable upper intake level is 2300 mg/day. http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/sodium-eng.php.

| | | | |
|---|---|---|---|
| Interventions listed on Canadian Best Practices Portal (CBPP) | 300 listed by March 31, 2010 | Met all<br><br>316 interventions listed | As of March 31, 316 interventions or best practices were published on the CBPP. In addition, the range of resources (number of documents, types of documents) was increased. This increase gives decision-makers access to emerging best practice approaches to chronic disease prevention. CBPP additions included new interventions and resources for Injury Prevention, Family Violence, Gambling, Food Security, and Mental Health. |

**Benefits for Canadians**

PHAC contributes to improving the overall health of Canadians by working to lower the number of Canadians who develop chronic diseases and enhance the quality of life for those living with chronic diseases.

The Agency also contributed to better collaboration among stakeholders for improved coordination and sharing of knowledge on common risk factors. The Agency provides public health practitioners with data, analysis, Web tools and technical advice to support policies, program development and public health interventions. As a result, public health decision/policy-makers and practitioners were supported in making well-informed decisions about what policies and programs work in order to reduce the burden of chronic disease in Canada.

**Performance Analysis**

More accessible surveillance information has led to enhanced knowledge about chronic diseases and their risk factors. For example, in June 2009, PHAC released *Tracking Heart Disease and Stroke in Canada* which synthesized and reported the most current and comprehensive picture of cardiovascular diseases in Canada. Written in collaboration with the Canadian Institute for Health Information, the Canadian Stroke Network, the Heart and Stroke Foundation of Canada, and Statistics Canada, it is the first report of cardiovascular disease surveillance published since PHAC was created in 2004. In addition, the annual *Diabetes in Canada* surveillance report was released in February 2010, and the Canadian Cancer Statistics report was released in May 2010. A report on standardized performance measurement for cervical cancer screening programs in Canada was also released in the spring of 2009. The Agency improved its understanding of cancer and chronic diseases among the Métis population through data collection and linkages to provincial cancer registries, physician billing and hospitalization databases. The Agency's science publications, such as *Chronic Diseases in Canada*, also promote better understanding of chronic diseases and their risk factors.

**PHAC Facts...**
PHAC committed $10M over three years to launch the Lung Health Program which will address information gaps (awareness of prevention, early detection, and self-management of lung diseases, including potential risks from the environment) identified in the National Lung Health Framework, with emphasis on high-risk populations.

**PHAC Facts...**
By 2011, 2.6 million Canadians will have a diabetes diagnosis—a seven-percent average annual increase. Through the Canadian Diabetes Strategy, the Agency invests $18M annually to prevent diabetes and its complications, and provide information to Canadians who are at a higher risk of diabetes.

In addition to surveillance information, the Agency helped to build the scientific evidence base by contributing to several reports and plans, including the Report on Vitamin D and Calcium Intakes[20] related to disease prevention; and the summary of the symposium "Dietary patterns research and its applications to nutrition policy for the prevention of chronic disease among diverse North American populations" which was published in the *Journal of Applied Physiology, Nutrition and Metabolism*.

PHAC fostered innovation in developing and assessing models for chronic disease prevention at the provincial, territorial, and community levels through interventions, screening, and preventive health care. For example, the Agency disseminated risk assessment tools, such as the CANRISK Diabetes screening questionnaire, at the provincial and local level in at least 12 community health centres. PHAC leveraged the Canadian Partnership Against Cancer's investment to support the creation of the Coalitions Linking Action and Science for Prevention; PHAC is currently funding projects that will help accelerate chronic disease prevention in Canada with a focus on northern and Aboriginal communities. It also supported community initiatives such as the development of the National Aboriginal Health Organization's television broadcast health series on Inuit health to include

[20] Chung M, Balk EM, Brendel M, Ip S, Lau J, Lee J, et al. *Vitamin D and Calcium: A Systematic Review of Health Outcomes*. Evidence Report No. 183 (Prepared by the Tufts Evidence-based Practice Centre under Contract No. HHSA 290-2007-10055-I) AHRQ Publication No. 09-E015. Rockville, MD: Agency for Healthcare Research and Quality. 2009.

content on gestational diabetes and type 2 diabetes prevention. This has allowed the Agency to accelerate cancer and chronic disease prevention in northern and Aboriginal communities as well as raise awareness of risk factors for diabetes and the public health implications of obesity.

Through the Canadian Breast Cancer Initiative, PHAC supported breast cancer networks working at the national and P/T level to address the information and support needs of Aboriginal, rural and remote communities as well as the needs of young women with breast cancer. Also, PHAC has provided support to cancer organizations to develop and share best practices, community-based innovations, or approaches that address underserved and rural populations. In addition, the Agency provided evaluation and decision support tools to help Canadians make informed choices such as the Breast Cancer Screening Decision Aid. A Compendium of Best Practices to Engage Seldom or Never Screened Women in Cancer Screening has been developed, collecting more than 60 best practices which will be shared nationally with cancer stakeholders and public health organizations.

**PHAC Facts...**
In June 2009, PHAC, in collaboration with the Neurological Health Charities Canada, launched the first National Study on Neurological Diseases. This four-year national population study will develop important knowledge about neurological disease prevalence, risk factors, health service use, and economic cost today and over the next 20 years. The federal government will provide $15M over four years to fund the design of this study, working closely with the stakeholders.

With the launch of the Canadian Task Force on Preventive Health Care, the Agency responded to the needs of primary health care providers for evidence-based preventive health care guidelines that support the adoption of prevention in practice. In November 2009, PHAC supported, in collaboration with the Canadian Institutes of Health Research, the establishment of an Evidence Review and Synthesis Centre, to ensure rigorous systematic reviews of scientific evidence to inform the development of innovative practice guidelines and recommendations.

The Agency collaborated internationally to advance chronic disease prevention and mitigation. PHAC is a World Health Organization (WHO) Collaborating Centre on Non-communicable Chronic Disease Policy and works with the WHO as well as the Pan American Health Organization to develop, monitor and evaluate frameworks to advance the Global Strategy for the Prevention and Control of Non-communicable Diseases. In addition, the Agency collaborates with the Organisation for Economic Co-operation and Development to conduct economic analysis of interventions to prevent chronic diseases linked to unhealthy diets, sedentary lifestyles and obesity in Canada. Experts from local, national and international organizations emphasize the importance of considering multiple policy approaches to reduce the burden of chronic disease.

**PHAC Facts...**
PHAC continues its participation as Canada's representative to the Global Alliance against Chronic Respiratory Diseases (GARD). GARD is a voluntary alliance of 40 nations, as well as international organizations, institutions and agencies, which supports WHO in its commitment to reduce the global burden of chronic respiratory diseases.

PHAC has demonstrated leadership in chronic disease prevention through its membership in the WHO's Global Noncommunicable Disease Network (NCDnet) International Advisory Committee.[21] PHAC has also been involved in the development of NCDnet's Monitoring and Evaluation Strategy. The strategy will provide a logic model for monitoring all stages of planning, operations and implementation to ensure readiness for an evaluation of the impact of NCDnet in 2012-13.

**Lessons Learned**

A key lesson learned from a 2004 evaluation of the Canadian Diabetes Strategy was the need to capture what has been learned from the community-based projects and communicate those lessons to future projects.[22] This lesson was also reflected in more recent evaluations in 2009, which identified a similar requirement to disseminate project-level evaluation findings and lessons learned to improve future projects aimed at preventing and mitigating diabetes.[23] Work has begun to synthesize and evaluate the outcomes from diabetes community-based projects in order to determine the effectiveness of diabetes prevention and management strategies. These lessons are being applied to other chronic disease programming where project-level data is

[21] NCDnet is a platform for collaboration among WHO member states and other international partners committed to the fight against chronic diseases.

[22] Public Health Agency of Canada. *Evaluation of the Canadian Diabetes Strategy – Final Report.* Rick Wilson Consulting Inc., 2004: 5. While reference is made to evaluation findings in 2004, there is continued need to ensure these lessons are incorporated into current practices within PHAC for examining the impacts of community-based programming.

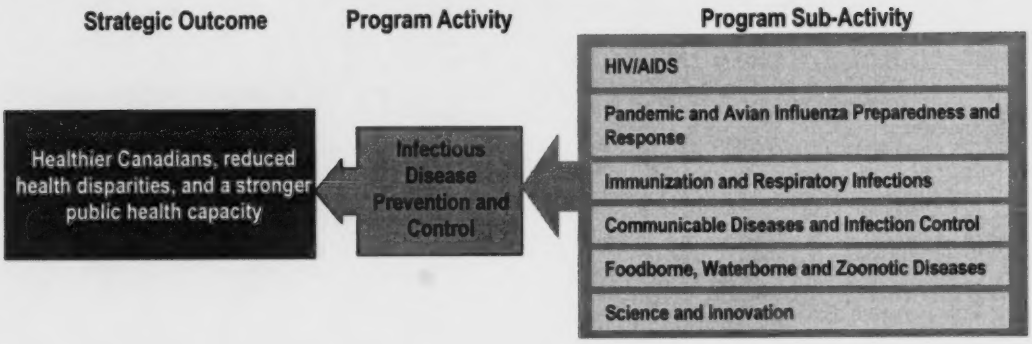
[23] Public Health Agency of Canada. *Integrated Strategy on Healthy Living and Chronic Disease: Formative Evaluation of Diabetes Community-Based Programming – Evaluation Report.* JLS Management Consulting Inc. Public Health Agency of Canada, Chronic Disease Prevention Division. 2009: 36.

being collected. An important component of this work involves the timely dissemination of these findings to relevant organizations in order to inform future diabetes programming.

Since the Canadian Breast Cancer Initiative was launched, the cancer landscape has changed and new stakeholders and networks have emerged. Their work has contributed to cancer prevention and control efforts at the local, regional and national levels. The 2008 evaluation of the Canadian Breast Cancer Initiative[24] noted that planning for action on breast cancer should involve those directly affected by this chronic disease. PHAC has a role to play to ensure that the breast cancer community continues to have a forum to network, and those opportunities are created for their participation in the larger cancer community.

[24] *"So much sharing": Evaluation of the capacity building component of the Canadian Breast Cancer Initiative*, Final Evaluation Report, March 8, 2008.

### 2.1.3 Program Activity – Infectious Disease Prevention and Control


Strategic Outcome
Program Activity
Program Sub-Activity
Healthier Canadians, reduced health disparities, and a stronger public health capacity
Infectious Disease Prevention and Control
HIV/AIDS
Pandemic and Avian Influenza Preparedness and Response
Immunization and Respiratory Infections
Communicable Diseases and Infection Control
Foodborne, Waterborne and Zoonotic Diseases
Science and Innovation

| Financial Resources ($ millions) 2009-10 | | |
|---|---|---|
| Planned Spending | Total Authorities | Actual Spending |
| 261.3 | 747.2* | 529.3** |

| Human Resources (Full-Time Equivalents) 2009-10 | | |
|---|---|---|
| Planned | Actual | Difference |
| 831.9 | 992.0 | (160.1)*** |

*The Total Authorities were higher than Planned Spending mainly due to new funding for the H1N1 vaccine and other costs of the pandemic response, for the vaccine fill line, and for initiatives in response to lessons learned from the Listeria outbreak.

**PHAC received funding for the H1N1 vaccine and other costs based on the best available information in the summer. However, by fall, the containment of the outbreak was effective which resulted in lower than anticipated costs. Funding Authorities for a new influenza vaccine fill line and the Canadian HIV Vaccine Initiative were moved to future years, which resulted in lower Actual Spending in 2009-10.

***The variance between Planned and Actual FTE utilization is mainly due to hiring for H1N1 response activities and successful staffing of new employees through a recruitment drive.

**Program Activity Expected Results:**

- Reduced incidence of infectious diseases of public health importance in Canada.
- Improved response to infectious disease outbreaks in Canada both in the health care and community settings.

| Performance Indicator(s) | Target | Performance Status | Performance Summary |
|---|---|---|---|
| Incidence of tuberculosis, viral hepatitis, sexually transmitted infections (STIs), West Nile Virus (WNV), and HIV among Canadians | Establish baseline by March 31, 2011 | Somewhat met[25]<br><br>Tuberculosis (TB) baseline: 4.8 per 100,000 (2007)<br><br>TB target: 3.6 per 100,000 by 2015 | The 2007 incidence rate of 4.8 per 100,000 was the lowest TB rate ever reported in Canada, and represents good progress toward the Canadian target of 3.6 per 100,000 by 2015. Provisional data for 2008 indicates that the incidence rate would remain unchanged from 2007. Much work remains to be done to decrease the high rate of TB in the Aboriginal population.<br><br>The prevention and treatment of STIs is a significant public health challenge in Canada. Between 1998 and 2007, the reported rate of chlamydia increased by 74%, with approximately 74,000 cases reported in 2007. The number of reported cases is an underestimate of the true incidence |

[25] It is important to note that having an increase in reported rates/incidence can also be an indication of improved surveillance, heightened awareness, etc.

| | | | |
|---|---|---|---|
| | | | and burden of infection due to the high proportion of asymptomatic cases that remain undiagnosed. Due to underreporting, comprehensive incidence rates are not available at this time. Gonorrhea and syphilis pose similar concerns.[26]<br><br>The Enhanced Hepatitis Strain Surveillance System (EHSSS) measures the incidence of hepatitis B and C in select Canadian jurisdictions (covers 40% of the Canadian population). Diagnoses of acute hepatitis B declined from 0.74 per 100,000 people in 2008 to 0.56 per 100,000 people in 2009. Diagnoses of acute hepatitis C declined from 2.40 per 100,000 people in 2008 to 1.88 per 100,000 people in 2009. Given the complexities associated with the symptomatic /asymptomatic proportions of hepatitis B/C, there is no established baseline for these diseases as of yet. Compared to other countries, Canada has low rates of hepatitis B (3.3 per 100,000 in 2007) and C (2.2 per 100,000 in 2008). Incidence rates are considerably higher among Aboriginal populations and other at-risk groups, where improved vaccine coverage and other infection control measures would be of benefit.[27] |
| | | WNV baseline and target range: 0.025 - 7.06 per 100,000 (2009) | WNV risk and incidence of human cases are significantly influenced by factors such as weather and climate leading to wide inter-annual variations in human case incidence. National human WNV case surveillance data are obtained in a timely manner (weekly during WNV season) from all provinces and territories, and have been collected from 2002-2009 to establish baseline data and variations from this baseline.<br><br>The incidence rate for HIV has remained essentially unchanged for the past five years. There has been an increase from 8.8 per 100,000 in 2007 to 9.9 per 100,000 in 2008, and Canada ranks in the mid-range among developed countries.[28] |
| Agreements with provinces and territories on information management during outbreaks where there is a federal role | 40% of P/Ts have agreements for improved information sharing by March 31, 2011 | Mostly met | All F/P/T Ministers of Health signed two memoranda of understanding on Information Sharing During a Public Health Emergency and on Provision of Mutual Aid in Relation to Health Resources During an Emergency Affecting the Health of the Public.<br><br>A Multi-lateral Information Sharing Agreement (MLISA) on infectious diseases is currently under development through a PHAC-supported F/P/T task group. This agreement will include biological substances, a generic main body on infectious disease, and technical schedules dealing with specific infectious diseases and public health events. |

[26] Source: http://www.phac-aspc.gc.ca/sti-its-surv-epi/index-eng.php.
[27] Source: http://www.phac-aspc.gc.ca/hep/index-eng.php.
1) *Brief Report Hepatitis B Infection in Canada*; and
2) *Epidemiology of Acute Hepatitis C Infection in Canada*.
[28] http://www.phac-aspc.gc.ca/aids-sida/publication/survreport/estimat08-eng.php.

**Benefits for Canadians**

The Agency contributes to reducing both the risk of acquiring and the burden of infectious diseases in Canada. The Agency's surveillance and public health assessment activities work to improve access to key data and reduce the impacts of infectious disease outbreaks. The Agency's science and innovation activities develop leading-edge methods of assessment for monitoring and evaluating public health risks.

Through application of the legislative and regulatory provisions of the *Quarantine Act* and other public health measures including the provision of quarantine officers at major ports of entry, the Agency contributes to the protection of Canadians against the importation of infectious diseases which pose a threat to public health. It collaborates with key partners such as the Canadian Border Services Agency to contribute to heightened screening by asking additional health questions and through public health messaging by distributing Health Alert Notices handouts, on-board messaging and posters at international airports.

**Performance Analysis**

Outlining future directions for a renewed public health response to address hepatitis C, the Agency released its Strategic Framework for Action in June, 2009. The renewed Hepatitis C Program, through inter-sectoral collaboration and partnerships, funded 48 projects across Canada addressing three key themes:

- research and surveillance – projects under this theme centred on contributing to better treatments, innovative technologies, more effective public health responses and new evidence-based policies as well as better surveillance and epidemiology data collection and analysis tools;
- care and awareness – this theme's projects focused on capacity-building opportunities for health and social services professionals, researchers and community-based organizations and strengthened models of care and treatment for vulnerable and under-served populations; and
- prevention and community-based support – investment in these projects aimed at creating, enhancing and sustaining linkages between co-infection with other infectious diseases, populations and health determinants, common risk factors and population health/health promotion approaches, as well as increasing community-based capacity to ensure relevant programmatic responses to localized prevention needs and/or priorities.

**PHAC Facts...**
The Agency's support and funding of the Pacific AIDS Network (PAN) (a provincial network of over 55 community-based organizations devoted to the care, treatment and support of persons living with HIV/AIDS, co-infected with HIV or at "risk") provided the stimulus for its new focus on professional development and capacity building for member agencies. In April 2010, PAN's Executive Director was awarded the BC Persons with AIDS Society ACCOLAIDS Award honouring her role in Social/Political/Community Action.

In the battle against HIV, the Agency's National HIV and Retrovirology Laboratories (NHRL) continue to provide highly specialized diagnostic services for provincial, national and international stakeholders. It manages a range of laboratory quality assurance and monitoring programs for patient care and treatment. The NHRL is accredited to the ISO 15189 Standard (i.e., Medical Laboratories – Particular Requirements for Quality and Competence) and is the sole Canadian lab to be accredited to this standard.

Knowledge of the factors that contribute to the spread of HIV infection was advanced through augmented HIV and risk behaviour surveillance programs and through reporting on current surveillance data, research, current responses, emerging issues and gaps for at risk populations. Targeted epidemiological studies were developed and enhanced. Work continued with provinces and territories to enhance HIV surveillance and reporting, and memoranda of agreement were developed to support the province-based work of Field Surveillance Officers and the tracking of HIV strain and drug resistance in Canada.

HIV/AIDS sentinel surveillance programs continue to be established and implemented among at-risk populations in order to develop targeted studies to address issues arising from case-reporting surveillance. The surveillance information provides statistical support for HIV/AIDS modelling efforts to assess the hidden epidemic and produce national HIV estimates.

The construction of a pilot-scale manufacturing facility for the production of a safe, effective, affordable and globally accessible HIV vaccine did not move forward as planned. An open and transparent selection process for a Not for Profit Corporation to build and operate a pilot scale clinical trial lots manufacturing facility was completed; however, none of the applicants were found to be successful in meeting pre-established criteria. The Bill & Melinda Gates Foundation and the Government of Canada announced in February 2010 that they would not move forward with the manufacturing facility given a shift in landscape which demonstrated that there was sufficient manufacturing capacity. Subsequently, in July 2010 the Government of Canada and the Bill & Melinda Gates Foundation announced the renewal of the Canadian HIV Vaccine Initiative, with the establishment of a new Research and Development Alliance as its cornerstone.

**PHAC Facts...**
The Government of Canada Assistant Deputy Minister Committee on HIV/AIDS hosted the first *Interdepartmental Policy Forum on the Determinants of Health and HIV/AIDS*. Fourteen federal government departments and agencies forged linkages and a shared understanding of potential synergies across federal mandates, target populations and priorities. The results of the Forum include the identification of common barriers to horizontal collaboration; strategies to overcome the barriers; and consensus to build an all-of-government approach to address the broader social and economic determinants of health.

Canada was alert to the risk of an emerging respiratory infection from Mexico (H1N1) and detected the early cases in Canada. Within days, clinical guidance and infection control documents were posted on the Agency Web site. In consultation with P/Ts and professional groups, the Agency developed 44 clinical guidance documents over the course of the pandemic and weekly media briefings led to high levels of preparedness and confidence in the government response. Highlights of the Agency's activity with respect to H1N1 were the partnerships that emerged and the high level of collaboration among all the stakeholders. Canada was known internationally as having one of the best vaccine contracts and highest vaccination rates in the world.

The Canadian Network for Public Health Intelligence continues to be a key technology platform for the Agency's national surveillance, real-time alerting and response, and delivered two new applications as part of the F/P/T response to the H1N1 outbreak. One, an interactive Web-based platform for real-time interpretation and analysis of laboratory test results to support analysis and reporting during the H1N1 outbreak, and two, a platform for rapid real-time surveillance and monitoring of pandemic influenza associated pneumonia and risk factors using primary care electronic medical records.

Fulfilling the commitment to develop leading-edge methods of evaluating the health risk of emerging pathogens, the Agency created real-time polymerase chain reaction (Q-PCR) platforms to detect the H1N1 virus and identify H1N1 drug-resistant strains. The implementation and use of Q-PCR platforms played a significant role in the Agency-wide response to the H1N1 outbreak by providing rapid, more accurate assessments of confirmed cases and facilitating more informed decision making at F/P/T levels.

**PHAC Facts...**
The H1N1 outbreak provided an opportunity to examine the antiviral drug management and supply strategy. Based on lessons learned as identified by the Clinical Care and Antiviral Task Group following the pandemic, the Agency will re-examine the composition and quantities of antiviral stockpiles.

The Agency conducted economic and social impact analyses of the H1N1 influenza pandemic on Canadians; modelling studies on the spread of the H1N1 outbreak are ongoing. The evergreen Canadian Pandemic Influenza Plan formed the basis of the H1N1 response; this year four annexes were updated.

In June 2009, the Agency launched an information campaign for new parents called It's Time to Immunize. This campaign continues to offer parents clear, easy-to-understand information about immunization to help them make informed decisions about their children's health. As a part of that campaign, the Agency developed *A Parent's Guide to Immunization* in 10 languages, which covers vaccine safety, the importance of on-time immunization, information on the 13 serious diseases that can be prevented by vaccines, and provides parents with information to help them understand what they should expect when their child gets immunized. As of March 31, 2010, over 56,000 copies of the guide have been ordered through 1-800-O-Canada.

The Agency has taken positive steps regarding vaccine safety surveillance. Contributing to this effort is a strengthened sentinel hospital surveillance system which shares more detailed information regarding children with serious vaccine-associated adverse events. One trade-off associated with the focus on H1N1 is the maintenance, as opposed to enhancement, of current activity in vaccine preventable disease surveillance.

The Agency's Canadian Nosocomial Infection Surveillance Program (CNISP) has provided early detection of novel influenza viruses and monitoring of severe morbidity/mortality during a pandemic through FluWatch since 2005. In a repeat point prevalence survey for healthcare-associated infections (HAIs), the CNISP reported that 12.4%

**PHAC Facts...**
The Canadian Nosocomial Infection Surveillance Program and other blood safety surveillance programs continue to monitor infectious diseases, their risk factors, and determinants of health. A new program, the Cell, Tissue, and Organ Surveillance System is in its pilot stage.

of patients admitted to Canadian acute-care hospitals had one or more HAI. The prevalence of HAI increased 11.7 percent from 2002 to 2009. The increase was seen primarily in adults in whom the prevalence increased by 17.1 percent, whereas in children, the prevalence decreased by 6.6 percent.[29]

Collaboration to develop modelling capacity to predict West Nile virus is ongoing and Agency research related to infection prevention and control of influenza in healthcare settings was completed. Results will be available in 2010-11.[30] The Agency's Special Pathogens Program began development of a new platform to test human or animal serum samples for up to 10 different biosafety level 4 viruses at one time per sample. Tests were developed for detecting novel vector-borne pathogens to assist scientists in identifying new mosquito-borne viruses and to issue alerts to P/T public health labs and health departments. As well, Agency science activities at the human-animal-environment interface have been published in 60 national and international journal articles this past year.

**PHAC Facts...**
In October 2009, the Agency's National Microbiology Laboratory was granted full entry into the Global Polio Laboratory Network and given formal accreditation as a Pan American Health Organization/World Health Organization Polio Regional Reference Laboratory.

The Agency also worked to establish a more holistic approach to disease prevention and population risk characterization with a view to include determinants from agriculture and the environment for the benefit of humans and animals. Satellite technologies were used to collect global information about factors that can affect public health and to enhance surveillance methods. Newly developed Agency tools of geospatial information systems were also used to track the spread of H1N1 in order to develop the appropriate outbreak response. And building on lessons learned in 2008-09, the Centre for Food-borne, Environmental and Zoonotic Infectious Diseases is collaborating with the CFIA and other partners to develop an Integrated Risk Assessment (IRA) capacity to strengthen our ability to evaluate and respond to zoonotic disease threats. Continued work in the area of emerging pathogens resulted in the National Microbiology Laboratory developing high capacity tools for identifying and classifying potential threats to public health in Canada and monitoring the evolution of these threats over time.

The Agency continued to develop innovative approaches to mitigate the incidence of infectious and chronic diseases based on the analysis of human genetic risk. Novel genetic biomarkers are under development that will lead to earlier detection, enhanced monitoring and action through identification of vulnerable subpopulations that can be targeted for risk prevention.

**Lessons Learned**

Although Canada remains a leader in immunization and generally compares favourably with other Organisation for Economic Co-operation and Development countries, research and analysis indicates that there is room for improvement. The 2007 Interim Evaluation of the National Immunization Strategy (NIS) identified four gaps relating to: 1) lack of public health research; 2) less than optimal coordination between the Canadian Immunization Committee and the National Advisory Committee on Immunization; 3) insufficient attention to special populations (mobile populations, immigrants, Aboriginal peoples); and 4) lack of sustainable funding models. Building on the Interim Evaluation of the NIS, policy research and analysis is being carried out to further substantiate and determine lessons learned, as well as any necessary corrective action to strengthen the NIS. Options and recommendations are under development.

The H1N1 response demanded timely reporting of hospitalizations and deaths. There is a need for the Agency to develop a common, reliable and accurate electronic system to link epidemiological and laboratory information to support laboratory handling of emerging pathogens, and an information strategy to efficiently distribute clinical guidance to front-line health care providers. The Agency undertook a surveillance project that successfully established an additional set of conceptual and analytic tools and expertise concerning the spread of H1N1, the results of which are being prepared for publication. The project noted that the receipt of data defining the extent of illness and ready integration of surveillance data with epidemiological modelling is critical to predict and assess pandemic risks. Work related to this modelling is ongoing.

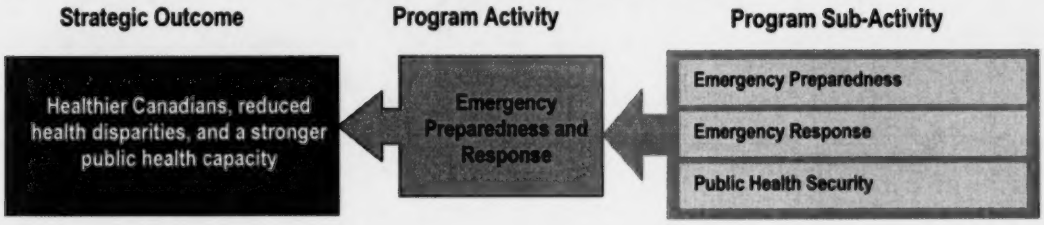
As per its federal obligations, PHAC undertook a Summative Evaluation of the Blood Safety Contribution Program (BSCP), covering the period of 1998 to 2008. The Agency has accepted and taken action on all the report's recommendations. Highlights of progress against the recommendations include: the Transfusion Transmitted Injuries Surveillance System which now covers 83 percent of the red blood cell transfusion activity in Canada; the Transfusion Error Surveillance System which provides an improved characterization of transfusion errors; and the piloting of the Agency's new Cell, Tissue and Organ Surveillance

[29] Preliminary results from the CNISP (2009) and Gravel D,Taylor B, Ofner M, Johnston L, Loeb M, Roth VR, et al. Point prevalence survey for healthcare-associated infections within Canadian adult acute-care hospital, *Journal of Hospital Infection*. 2007; 66: 243-248.
[30] Source: PHAC pH1N1 Infection Control Research Plan (Feb. 2, 2010), presented to the pH1N1 Infection Control Research WG on Feb. 4, 2010.

System. PHAC's response to the evaluation demonstrates its continued commitment to maintaining the confidence of Canadians in the safety of the national blood supply.

Major findings of the May 2009 *Federal Initiative (FI) to Address HIV/AIDS in Canada Implementation Evaluation Report* identified that the FI is in an advanced stage of implementation and that key outputs aligned with outcomes. Findings and recommendations focused on opportunities to strengthen performance measurement, information management systems and horizontal management. The Management Response and Action Plan developed to address the recommendations is on track.

### 2.1.4 Program Activity – Emergency Preparedness and Response




| Financial Resources ($ millions) 2009-10 | | |
|---|---|---|
| Planned Spending | Total Authorities | Actual Spending |
| 32.3 | 67.8* | 39.2** |

| Human Resources (Full-time Equivalents) 2009-10 | | |
|---|---|---|
| Planned | Actual | Difference |
| 200.2 | 199.6 | 0.6 |

*The variance between Planned Spending and Total Authorities is mainly due to additional funding received for H1N1 response and security for the Vancouver 2010 Olympics.

**Actual Spending was lower than Total Authorities mainly due to the H1N1 influenza pandemic being less severe than originally forecasted, resulting in lower laboratory costs and pandemic response requirements.

**Program Activity Expected Result:**

- Canada is prepared to respond to public health risks caused by natural and human-caused emergencies including infectious disease outbreaks, hurricanes, floods, earthquakes, Chemical, Biological, Radiological, and Nuclear (CBRN) emergencies and to recover from the aftermath of these emergencies.

| Performance Indicator(s) | Target | Performance Status | Performance Summary |
|---|---|---|---|
| Extent to which events and exercises are useful in enhancing the Agency's management of emergencies | Lessons learned are carried out for 100 percent of events and exercises | Met all | Events and multipartite exercises have been instructive in identifying gaps related to the Agency's overall management of emergencies. For example, H1N1 and the 2010 Olympic Winter Games in Vancouver tested the ability of the Agency to manage multiple public health events. These experiences suggest that:<br>• Canada has the capacity for public health interventions including emergency response;<br>• the Agency enhances the ability of public health organizations to carry out core public health responsibilities;<br>• Canadian public health workers and first responders have the competencies required to carry out effective public health functions;<br>• there is improved inter-operability and response capacity among relevant pan-Canadian agencies;<br>• public health risk reduction and management plans establish clear roles and responsibilities and are managed in a timely manner; and<br>• there is enhanced collaboration among F/P/T, international and NGO public health partners.<br>Opportunities for improvement in emergency preparedness at |

| | | | |
|---|---|---|---|
| | | | the Agency exist with respect to planning, equipment, training and preparation. |
| Percentage of implementation of the International Health Regulations in Canada | Meet compliance obligation 100% by 2012 | Exceeded | Canada completed a self-assessment of the ability of existing F/P/T structures and resources to meet the minimum core capacity requirements of the International Health Regulations (IHR). Canada already meets the minimum requirements; however, 10 areas could be strengthened. An action plan to address these areas has been approved by F/P/T IHR Champions. A Pan-Canadian Capacity Assessment Report: Process, Findings and Action Plan will be published in the fall of 2010. |

**Benefits for Canadians**

Ensuring Canada's regulation development and compliance, and emergency response protocols and capacity reduce the potential harm to Canadians and increase the nation's recovery speed from a public health event is an ongoing effort requiring continuous improvement and attention. Threats to the health and security of Canadians are mitigated during international public health emergencies; risks are identified, planned for, and managed during international and domestic mass gatherings; and 24/7 health emergency response and quarantine capability and capacity contribute to the health and safety of Canadians. An all hazards approach[31] is ongoing.

To this end, the Agency: delivers and implements the highest quality national regulation taking into account international standards and obligations; maintains a stockpile of medical supplies for use as required anywhere in Canada; screens for and contributes to the containment of potential threats to public health at all points of entry to Canada; and provides ongoing services, inspection and expertise to enhance the safe handling and security of human pathogens and toxins.

**Performance Analysis**

Central to the Agency's Emergency Preparedness and Response capacity is the Health Portfolio Operations Centre (HPOC). It serves as the main communications access point for stakeholders and manages the joint response of Health Canada and the Agency to public health events. Operating 24/7 during the response to the H1N1 influenza pandemic and the Vancouver 2010 mass gathering event, HPOC produced and disseminated to national and international stakeholders the Fusion Report[32] and ensured that Canada was International Health Regulation (IHR) compliant in its ability to respond to inquiries and to communicate information on events of international public health concern.

The Agency established the Pan Regional H1N1 Task Force Working Group. Regional Health Portfolio staff were trained in all Regions to work in Regional Emergency Coordinating Centres and implemented the federal health response to local emergencies in cooperation and partnership with F/T/P public health officers. Together with the establishment of a Regional Liaison Officer role these activities ensured a comprehensive and consistent emergency response across the nation. PHAC's Regional Offices have completed the H1N1 Pan-Regional After Action Report and are acting on lessons learned.

The Agency also supported F/P/T Health Emergency Response Networks such as the Council of Emergency Social Service Directors, Council of Health Emergency Management Directors, Council of Emergency Voluntary Sector Directors, the National Municipal Emergency Social Services Network and the National Emergency Psychosocial Advisory Consortium. All groups were active and maintained ongoing communication, producing deliverables such as Psychosocial Fact Sheets to enhance the H1N1 response.

**PHAC Facts...**
The Agency supplemented its 10 National Emergency Stockpile System as part of its ongoing modernization strategy. Over 400 ventilators, including those with pediatric capabilities, were added. A new mini-clinic was developed and deployed for use during mass gatherings.

Fundamental to the effective implementation of public health preparedness and capacity strategies are plans. The Agency: completed the Health Portfolio Emergency Response Plan; implemented an Emergency Preparedness and Response Plan with Standard Operating Instructions within the Incident Command System (ICS) utilized at the 2010 Olympic Winter Games; applied

[31] Preparedness and capacity to respond to chemical, biological, and radio nuclear threats (CBRN), and the Agency's support to F/P/T/international/NGO partners to enhance skills and capacity, and to strengthen information sharing, communication, clarity of roles and responsibilities, and collaborative preparedness and response to public health emergencies.
[32] A high-level weekly overview of public health activities affecting Canadians, emerging trends and available resources.

the laboratory component of the Canadian Pandemic Influenza Plan during H1N1, improving communication and collaboration; and implemented the pan-Canadian Health Incident Management System, which was used during the second wave of the F/P/T H1N1 response from October-December 2009. The Agency also implemented a mass gathering health emergency response plan for the Vancouver 2010 Winter Olympics and Paralympics in partnership with stakeholders. Twenty-one physicians, nurses and respiratory therapists from the Agency's Health Emergency Response Team were part of the medical team that staffed the Mobile Medical Unit during the 60-day medical operational period. To help ensure sufficient capacity at a time of crisis, the Agency has initiated discussions with regulatory bodies on inter-jurisdictional licensing of health professionals.

PHAC is also collaborating on an ICS for improved coordination and capacity during foodborne illness outbreaks with Health Canada and the Canadian Food Inspection Agency. Rooted in the *Lessons Learned: Public Health Agency of Canada's Response to the 2008 Listeriosis Outbreak*, these food safety partners are coordinating efforts to improve preparation and response to potential future foodborne outbreaks as well. To this end the partners have revised the Foodborne Illness Outbreak Response Protocol, one of many initiatives underway to improve food safety.

The Agency's emergency contracting plan was instrumental in our response to the H1N1 outbreak. The plan allowed the Agency to quickly increase the number of staff members and ensure they were ready to maintain open lines of communication and to secure timely approval for critical purchases. The Agency's procurement staff were able to work from anywhere at any time to purchase required medical supplies on behalf of all provinces and territories.

The Agency continues to build emergency preparedness capacity across Canada. As part of the Royal Canadian Mounted Police-led Integrated Security Unit, the Agency successfully commissioned and deployed the Microbiological Emergency Response Team (a mobile lab-truck and lab-trailer) to the 2010 Vancouver Winter Olympics. These advanced laboratory assets are now a key part of the Agency's capacity to enhance security at major international events, with PHAC scientists providing rapid in-field detection and assessment of high-risk pathogens.

Regulation is a key component for protecting Canadians from public health emergencies and mitigating the impact should they occur. The passing of the *Human Pathogens and Toxins Act* (HPTA) in June 2009 established the legislative framework for ensuring enhanced safety and security in the handling and management of imported and domestically acquired human pathogens and toxins. The Agency has a detailed five-year project plan outlining activities, timeframes and human resources required to implement the necessary program and regulatory framework of the HPTA in consultation with the provinces and territories.

**PHAC Facts...**
The Agency continues to expand its human resource capacity. In 2009-10 the Agency trained 800 health care professionals across Canada in public health emergency preparedness and response including CBRN response. Three hundred federal employees were trained to respond to a public health emergency. Ongoing emergency training exercises refresh and update their training and ensure readiness for future public health events.

Canada has contributed to several international initiatives in support of global emergency preparedness and response. With respect to IHR, the Agency has surpassed the commitment to achieve compliance by 2012 and has constructed an action plan to go beyond compliance. The Agency assisted the WHO in the development of guidance documents and training courses required for the international implementation of the IHR. Through the Global Health Security Action Group the Agency supported rapid information exchange during the H1N1 influenza pandemic and encouraged cooperation among member states.

An outstanding commitment of the Agency from 2009-10 is the finalization of the Quarantine Service Framework for Cooperation document with provinces, territories and local health authorities. The target for completion of the document is December 2012.

**Lessons Learned**

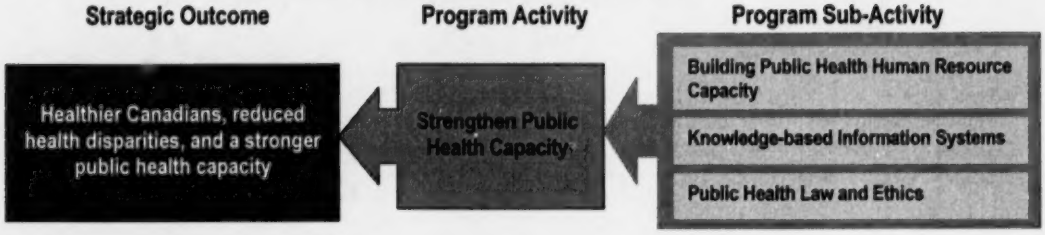
In order for the Agency to respond to future outbreaks like H1N1, critical human resource skills and competency shortfalls will need to be addressed. It will be vital for the Agency's future operations to ensure all employees have access to emergency preparedness training. Renewed efforts must be made to further define and deliver practical learning programs to employees to ensure surge capacity for outbreak management. Multipartite simulation exercises identified some minor gaps and opportunities for improvement in planning, equipment, training and preparation of Agency personnel to better react to public health events and emergencies.

The experience of H1N1 also identified the need for a tiered planning approach to pandemic response. Not all pandemic outbreaks will require 100 percent capacity to contain and manage; response plans should be developed for mild, moderate and severe pandemics.

The complexity of the interfaces and interplay among F/P/T health organizations during the H1N1 influenza pandemic revealed a greater than anticipated communication challenge. Cooperative action enabled all organizations to adapt individual emergency response systems. Clarity on the roles and responsibilities in pandemic response was enhanced, strengthening the Agency's ability to respond to future public health events.

Despite the successful passing of the HPTA, statements made by witnesses who appeared throughout the parliamentary process indicated that the level of stakeholder consultation in the preliminary drafting of the legislation was insufficient. Robust and meaningful stakeholder consultations will occur in subsequent phases in accordance with the principles outlined in the Cabinet Directives on Streamlining Regulations. Pre-consultations with provinces, territories and key stakeholders will inform a consultation plan that will be followed throughout the program and regulatory development process.

## 2.1.5 Program Activity – Strengthen Public Health Capacity


Strategic Outcome
Program Activity
Program Sub-Activity
Healthier Canadians, reduced health disparities, and a stronger public health capacity
Strengthen Public Health Capacity
Building Public Health Human Resource Capacity
Knowledge-based Information Systems
Public Health Law and Ethics

| Financial Resources ($ millions) 2009-10 | | |
|---|---|---|
| Planned Spending | Total Authorities | Actual Spending |
| 31.1 | 37.8* | 35.5** |

| Human Resources (Full-Time Equivalents) 2009-10 | | |
|---|---|---|
| Planned | Actual | Difference |
| 222 | 170.8 | 51.2*** |

*The variance between Planned Spending and Total Authorities is mainly due to new funding received for Listeria and collective bargaining.

**The variance between Actual Spending and Total Authorities is mainly due to delays in staffing as a result of the Agency's focus on responding to the H1N1 outbreak.

***The variance between Planned and Actual FTE utilization is mainly due to staffing delays resulting from the Agency focus on responding to H1N1.

**Program Activity Expected Result(s):**

- Canada has the public health workforce, information, laws and ethical frameworks needed to meet Canada's public health needs.

| Performance Indicator(s) | Target | Performance Status | Performance Summary |
|---|---|---|---|
| Public Health Capacity Index | Baseline by March 31, 2012 | Not available | As part of the development of the 2010-11 Performance Measurement Framework (PMF), consultation with program experts led to a decision to use the PMF indicators to report progress on strengthening public health capacity instead of the PH Capacity Index. An internal working group has been struck to establish, validate and monitor public health capacity indicators. Alignment of approaches to further develop public health indicators is in progress through the pan-Canadian Public Health Network Expert Groups. |

**Benefits for Canadians**

Canadians benefit from a public health workforce with the skills and knowledge to enhance Canada's ability to detect and take action on major health issues. The Agency helps to build this skills and knowledge base by: identifying learning needs and requirements for the public health workforce; providing learning opportunities; establishing professional development tools and programs; and developing workforce measurement tools to guide public health human resource planning.

**Performance Analysis**

Over the last year substantial advances have been made on the path towards a competency-based Learning Framework for the Agency. These include the establishment of PHAC's Learning Council in June 2009, which is a critical first step in the development of the Learning Framework. Achievements of the Learning Council include: establishment of a network of subject matter

**PHAC Facts...**
The 4th *Chief Public Health Officer's Report on the State of Public Health in Canada 2009 Growing Up Well - Priorities for a Healthy Future* was tabled in Parliament on October 20, 2009.

experts; endorsement of a Development Program for the economics and social science services (EC) classification; the Emergency Preparedness and Response Branch's Learning Framework; a pilot for automated Performance Discussion Process/Personal Learning Plan (PDP/PLP); and improved sharing of information regarding learning across disciplines. Other progress in this area includes: a pilot development program for physicians entering PHAC; an internship program for public health master's students; and a community medicine residents' program designed to strengthen collaborative relationships with schools of medicine across Canada.

An operational review was completed for the Canadian Field Epidemiology Program (CFEP) and a restructuring of the program was implemented. A formal evaluation of CFEP will be carried out within the larger Agency review of its Field Services.

Complete establishment of the Canadian Public Health Service Program faced significant challenges including staffing in remote locations, and an extremely high volume of responses to the call for applications.

The Agency continued to support the ongoing operations of the Public Health Human Resources Task Group by establishing critical paths for two public health priorities that were identified for increasing capacity: quality graduate public health education; and public health enumeration.

In collaboration with the University of Manitoba and the Federal Student Work Experience Program and Cooperative Education Programs, PHAC continues to provide training programs under the supervision of National Microbiology Laboratory (NML) scientists to post-doctoral fellows from around the world, local post-graduate medical fellows, graduate students and undergraduate students from across Canada. Over 180 individuals worked at NML in internship placements ranging from several months to several years in duration.

The Agency's Laboratory Liaison Technical Officer Program is in place with memoranda of agreement with seven participating provinces. During the H1N1 outbreak, these positions supported the laboratory portion of the Canadian Pandemic Influenza Plan and strengthened the coordination of the pan-Canadian response.

PHAC led negotiations with Ministère de la Santé et des Services sociaux and other provincial departments with regard to the launch of new programs and initiatives, as well as all agreements including intergovernmental agreements, contributions, and grants for all PHAC centres in order to ensure compliance and effective F/P/T relations.

Another area of focus is strengthening the Agency's surveillance function and surveillance coordination. PHAC has taken positive steps towards understanding the implications of managing privacy in its surveillance activities. The Agency has developed a Privacy Management Framework which includes, for example, the employment of a Web-based tool for Privacy Impact Assessment with the Agency and a Policy on the Collection, Use and Dissemination of Public Health Data, currently under implementation.

**PHAC Facts...**
During the H1N1 outbreak, the Agency responded by protecting Canadian points of entry through the deployment of staff, collaborating with key partners to increase screening, and through public health messaging. The Agency implemented an approved Data Quality Framework, and developed an Integrated Framework for Surveillance and a Risk Management Standard for surveillance activity and tools.

The Agency has taken a leadership role in the adoption of next generation technologies for surveillance case management data and information (e.g., pilot deployment of a Web-based single national component of the Panorama case management tool) in order to improve the collection and analysis of health information and for the coordination of federal, provincial, and territorial responses to disease outbreaks including foodborne illnesses. PHAC is also a member of Canada Health Infoway's pan-Canadian Standards Collaborative enabling the Agency to lead in the development of data and terminology standards for public health.

With links to Agency priorities such as surveillance and compliance with the International Health Regulations (IHR), the Agency is working through the pan-Canadian Public Health Network to develop agreements with provinces and territories. Finalized memoranda of understanding on Information Sharing During a Public Health Emergency and Provision of Mutual Aid in Relation to Health Resources During an Emergency Affecting the Health of the Public.are in place and form the initial building blocks for more detailed agreements. A formal multi-lateral information sharing agreement is under development by the relevant expert groups of the Network. Detailed negotiations are taking place to determine the public health circumstances under which information will be shared, what information and with whom it will be shared, and through which mechanisms it will be shared. The development of this multi-lateral information sharing agreement is integrated into the pan-Canadian IHR action plan.

The Agency's continuing efforts to facilitate decision-making include:

- establishing a team to support the corporate population health and epidemiological information needs by providing a focal point for population health assessment, one of six core public health functions;
- supporting the National Collaborating Centres for Public Health by completing the funding renewal process in March 2010 (up to five years between 2010 and 2015) for workplans focused on bridging the gaps between research, policy and practice in public health;
- enhancing ethics considerations in research through the Research and Ethics Board. This partnership between Health Canada and the Agency was implemented on April 1, 2010 and formalizes the ethics review process; and
- developing additional modules with provincial and territorial partners as part of the Canadian Network for Public Health Intelligence (CNPHI) (e.g., a Web-based tool for real-time interpretation and analysis of laboratory test results).

The management of science is another aspect of strengthening public health capacity. H1N1 proved an effective testing ground for new decision-making models. The Chief Public Health Officer's H1N1 Flu Virus Science Advisory Committee anchored PHAC's decision-making in science, ensuring the most effective and appropriate precautions protected Canadians throughout the H1N1 influenza pandemic.

For the long-term, the Agency is establishing a Science and Research Strategic Plan to align science, program and policy development. Championed by the Chief Public Health Officer, ongoing work in this area will result in an Agency-wide policy framework for the development and integration of science-based knowledge. It is expected to be completed in the spring/summer of 2011.

**PHAC Facts...**
PHAC Executive has recently approved the implementation of its Public Health Ethics Advisory Committee to provide advice and guidance to the Agency. Additionally, a national ethics framework will be explored through discussion with Health Portfolio members and appropriate P/T fora. These activities will benefit the health of Canadians by ensuring there is a national ethics framework for decision-making in place before a public health event occurs.

**Lessons Learned**

The successful implementation of cross-Agency mechanisms and the establishment of a collaborative culture to coordinate PHAC's surveillance function require ongoing commitment at all levels of the organization to support the goals, objectives and governance structure of the Agency's Surveillance Strategic Plan.

Two waves of pandemic H1N1 have demonstrated the need to ensure that all PHAC employees have access to critical public health knowledge and emergency preparedness training. In addition to the establishment of a secretariat office which coordinates surge capacity under the Foodborne Illness Outbreak Response Protocol, renewed efforts are required to further define and deliver practical public health learning programs to Agency employees in order to ensure appropriate surge capacity for multi-jurisdictional outbreak management. Greater numbers of employees with the necessary technical skills to manage outbreaks are needed across the country.

## 2.1.6 Program Activity – Internal Services

| Financial Resources ($ millions) 2009-10 | | |
|---|---|---|
| Planned Spending | Total Authorities | Actual Spending |
| 74.0 | 114.9* | 111.5** |

| Human Resources (Full-Time Equivalents) 2009-10 | | |
|---|---|---|
| Planned | Actual | Difference |
| 376.4 | 438.4 | (62.0)*** |

*The variance between Planned Spending and Total Authorities is mainly due to transfers from other Program Activities to increase the capacity of the Agency's financial and administrative infrastructure. Total Authorities were adjusted to reflect expenditures that were incurred by Internal Services on behalf of other Program Activities. For example, costs of communication services increased significantly due to the need to communicate with Canadians during the H1N1 pandemic. Also, funding for an addition to the Canadian Science Centre for Human and Animal Health (CSCHAH) is included in Internal Services.

**The variance between Actual Spending and Total Authorities is mainly due to delays in construction on the JC Wilt laboratory, CSCHAH expansion, and planned renovation projects.

***The variance between Planned and Actual FTE utilization is mainly due to hiring for H1N1 response activities, additional staffing required for new projects (e.g., Human Pathogens), and internal reallocations requiring realignment from other program activities.

**Program Activity Expected Results:**

- The communications, service operations and programs of the Agency comply with applicable laws, regulations, policies and/or plans and meet the diverse needs of the public.
- Strategic Allocation and prudent use of resources among programs, processes and services.
- Information technology and management that supports government priorities and program and service delivery.
- Assets are acquired and managed in a sustainable and financially responsible manner, throughout their lifecycle, to support cost-effective and efficient delivery of government programs and services.

| Performance Indicator(s)[33] | Target | Performance Status | Performance Summary |
|---|---|---|---|
| Compliance with the statutory time requirements of the *Access to Information Act* and *Privacy Act* | "A" rating (95% and above) | Mostly met | PHAC achieved a compliance rate of 83.1%. This compares to a federal department average of only 48% within the 30-day statutory timeline and 66% compliance with allowable timeline extensions reported for 2008-09.[34] |
| Compliance with the Government of Canada Communications Policy | 100% | Met all | Activities in relation to risk communications are compliant with the Government of Canada Communications policy. |
| Compliance with the Government of Canada *Official Language Act* | 100% of executives meet the language profile of their position<br><br>Number of active official languages complaints is zero | Somewhat met | 85% of executives meet the language requirements of their position. Human Resources is actively supporting the remaining executives (15%) in their efforts to achieve required language levels within designated time frames.<br><br>Of the 17 official language complaints, six have been closed with the Office of the Commissioner of Official Languages (OCOL), seven have been sent to OCOL for closure, and four remain active. |

[33] The Agency's 2009-10 RPP does not include performance indicators for the Internal Services program activity. The performance indicators included above were published in the 2010-11 RPP and reported on as best possible in this 2009-10 DPR.
[34] Information Commissioner of Canada. *Maximizing Compliance for Greater Transparency* http://www.infocom.gc.ca/eng/rp-pr_ar-ra.aspx [Accessed June 11, 2010.]

| | | | |
|---|---|---|---|
| Compliance with the Government of Canada *Employment Equity Act* | Aboriginal People – 3.3%<br>Persons with Disabilities – 4.3%<br>Visible Minorities – exceeds 12.9%<br>Women – 61.8% | Met all | PHAC Representation April 1, 2009<br>Aboriginal Peoples: 3.5%<br>Persons With Disabilities: 4.3%<br>Visible Minorities: 13.1%<br>Women: 69.4% |
| % growth of critical shortage occupational groups[35] | PE: 29<br>MD: 46<br>EC: 612<br>EG: 261<br>SE: 59 | Mostly met | Indeterminate Employees<br>PE: April 2009: 29; April 2010: 32; April 2010 % growth: 10.3<br>MD: 43; 41; -4.7<br>EC: 577; 650; 12.7<br>EG: 217; 225; 3.7<br>SE: 58; 60; 3.4 |
| % Year-end Agency variance of planned vs. actual expenditures | 5% variance or less | Not met<br>Not met<br>Met all | Operating (Salaries, Conversion Factor and O&M) – 5.6%<br>Capital Expenditures – 18.1%<br>Grants and Contributions – 1.5% |
| Compliance with the Government of Canada Common Look and Feel (CLF) 2.0 | 100% | Somewhat met | In the fall of 2009 TBS conducted a government wide review of Web sites to verify the level of CLF 2.0 compliance. Each page of content on the Web is required to go through a 131-point checklist toward compliancy. The TBS review revealed shortfalls in compliance in all government Web sites but smaller departments/agencies with large page volumes were shown to be even less compliant. The Agency continues to work toward full compliancy to meet CLF 2.0 standards. |
| % of major capital assets with completed asset condition reports | 100% | Somewhat met | The Agency enhanced oversight and control over its material assets through the implementation of its first Asset Management Policy by completing asset condition reports for capital assets with an acquisition value over $50,000 after being delayed due to the Agency's response to the H1N1 outbreak.<br>The Agency completed 62% of the asset condition reports for the identified capital assets (208 of 336). Remaining assets will be addressed in 2010-11. |

[35] The RPP 2010-11 commitment is to "increase or maintain workforce availability estimates based on April 1, 2009 baseline numbers." The percentage growth targets are still under development.

**Benefits for Canadians**

Internal Services supported the needs of programs and corporate obligations, and helped to align resources with government priorities. This enabled the efficient and effective delivery of programs and ensured that the Agency had sufficient resources to operate successfully through H1N1 and that matters of administration, human and capital resources were addressed. In addition, Internal Services provided advice and recommendations on matters relating to corporate risks, strategic planning, change management and improvements to the internal management of the organization. It evaluated and developed strategic plans, implemented Government of Canada policies and practices, strengthened corporate risk management practices and developed business continuity plans and facilitated enhanced and expanded skills sets by training employees.

**Performance Analysis**

Human resource capability and capacity is the greatest influence on the quality and quantity of work achieved. The Agency is committed to the continuous improvement and streamlining of Human Resource strategies, policies and practices. The results achieved are threefold. New staffing policies dealing with acting appointments and choice of appointment processes were approved in July 2009; amendments to the Chart of Delegation Authorities were approved; and a Values and Ethics Framework and Action plan was approved in February 2010. In addition, conflict of interest and post-employment guidelines were approved. In April 2010, the Agency endorsed a People Management Framework that provides a strategic and coherent approach for people management. Moving forward, the Agency will implement a three-year strategic approach to advance human resource priorities and objectives.

**PHAC Facts...**
In 2009-10, the Agency trained 99 staff on the Strategic Risk Communications Framework over eight sessions while 26 staff trained via specialized workshop for staff working on Information Sharing Agreement Project.

**PHAC Facts...**
The completion rate for the 2008-2009 Performance Discussion Process/Personal Learning Plan (PDP/PLP) exercise was 93%. PHAC continues to improve this process. An automated application of the PDP/PLP process has been developed, piloted and is to be implemented Agency-wide in 2010-11.

Corporate-wide activities have been developed to meet the needs identified by employees in the 2008 Public Service Employee Survey. The results demonstrated a solid foundation of skilled, dedicated and committed employees who are satisfied with their jobs, and have access to learning opportunities to perform their work. Areas that need improvement include work-life balance, workload, communication and the need to address harassment and discrimination. The Agency has held workplace wellbeing (WWB) conferences and delivered anti-harassment workshops to address these issues and continues to work to establish conditions to generate high levels of employee engagement in support of WWB. Co-champions of WWB were appointed and a WWB action plan was approved in May 2010.

The Agency continues to identify learners and monitor completions related to required training as per the TBS Policy on Learning, Training and Development. Finance and the learning team work in collaboration to ensure compliance with the policy and requirements to obtain financial delegation. In addition, PHAC's Learning Council supports the establishment of a vibrant learning culture at PHAC as discussed in Section 2.1.5.

Contributing to the Privy Council Office's Public Service Renewal Action Plan, PHAC has hired 57 indeterminate post-secondary recruits (including seven visible minorities) as of December 2009 and 20 more will join the agency in 2010-11. The Agency also hired 98 post-secondary students for co-op positions, placed 71 students in the Federal Student Work Experience Program, employed five students in the Research Affiliate Program, and coordinated the placement of about 50 masters-level students in related fields of study. The Agency has made progress in all of the identified Renewal priority areas. Under the 2009 Economic Action Plan, the Agency fully utilized the Treasury Board allocation of $177,021 and hired an additional 24 students in the regions. As well, in recognition of the students' contributions, PHAC held appreciation events in the NCR and Winnipeg in August 2009.

**PHAC Facts...**
As one of the federal departments selected to work closely with TBS in the Business Solutions pilot project, PHAC is actively participating in the Government of Canada common services roll-out.

A proposed Policy Suite Framework (PSF) was developed internally and approved within the Agency to address the need for standards and compliance with TBS requirements for policy monitoring and auditing mechanisms. The PSF was developed to provide clear guidance and define responsibilities, expectations, processes and level of approval requirements without creating an increase in rules governing the Agency. The implementation of the PSF will be completed once resources have been identified.

Risk management is crucial to the effective delivery of Agency services to Canadians. Increased use of the Strategic Risk Communications Framework (SRCF) involved training of Health Portfolio communications, program and policy staff through regular interactive sessions throughout the year. The Agency developed a risk communications strategy to guide how the Agency shares information with the public. Originally developed in response to the Listeriosis outbreak to address foodborne illnesses, new approaches identified in the strategy such as the innovative use of social media networks and audio-video Webcasts by the Chief Public Health Officer were instrumental in communicating with Canadians during H1N1. The Agency also developed and approved an Integrated Risk Management Standard and drafted the associated tools and criteria for its implementation.

The Agency's revised 2010-11 PAA and 2010-11 PMF were approved by Treasury Board and Treasury Board Secretariat on May 28, 2009 and July 31, 2009, respectively. PHAC will stabilize its PAA and continue to improve the PMF to ensure that the Agency's expected results, outputs and performance indicators are relevant and measurable.

While the PHAC Public Involvement Framework was delayed during the pandemic H1N1 response, the draft Framework and Handbook were used in the planning for the H1N1 vaccine prioritization consultation activities. The workplan—which includes tools, ongoing training and a Web presence—to finalize the Framework and Handbook has resumed and is targeted for a March 2011 completion date.

**Lessons Learned**

The 2007-2012 Strategic Plan mid-term assessment was a useful exercise which identified concerns and issues regarding the advancement of 28 priorities. The assessment resulted in senior management discussion of each of the 28 priority areas. This was beneficial, as it identified challenges and issues to focus on when moving forward despite requiring a significant time investment from the Agency.

The Agency completed a majority of the Asset Condition Reports despite the challenge of re-allocating human resources to support H1N1 efforts. By standardizing both the timing of the annual process and the information gathered, the asset review process was simplified.

Integration of the SRCF training with other ongoing Agency training opportunities is a best practice. To maintain this momentum, it is important for the Agency to create a community of practice for sustaining the promotion of best practices related to the SCRF in contrast to one-off training sessions.

A November 2009 Audit Report on information and records management (IM) found that PHAC's IM practices were in the early stages of development. The Agency's IM function is decentralized and requires further improvement to ensure that information and records management practices in PHAC are in full compliance with Treasury Board policies and directives. To address these challenges, the Agency has recently developed an information framework as well as policies, protocols and training for the IM function.

## 2.2 Canada's Economic Action Plan

Due to a lack of physical space, an expansion of the Canadian Science Centre for Human and Animal Health (CSCHAH) was approved by Treasury Board in April 2009 as part of Canada's Economic Action Plan to support the effective and efficient movement of specimens and goods within the CSCHAH. Forecasted spending for the project was $3.5M in 2009-10 and $20.6M in 2010-11. Actual spending in 2009-10 was $2.9M. The $600K variance between the actual and forecasted spending is due unforeseen administrative delays including de-scoping of work post-tender and municipal construction permit delays.

Despite these administrative delays, progress to date has been good. Initial start-up activities are complete, demolition commenced in December 2009 and construction activities began in April 2010.

A performance management framework for the Agency's Economic Action Plan project was established in the 2010-11 Report on Plans and Priorities. It is highlighted by the three expected results and performance indicators below. Information included in the Performance Summary is the best available information at the time of writing.

| Expected Results | Performance Indicators | Performance Summary |
|---|---|---|
| Increased pathogens diagnosing capacity | # of specimens processed by period of time | Not available until expansion is complete. A baseline will be established in 2010-11 for comparison. |
| Faster response to health emergency situations | Response time of diagnostic once sample is received | Not available until expansion is complete. A baseline will be established in 2010-11 for comparison. |
| Job Creation | # of jobs created | It is anticipated that the services of approximately 75 local tradespersons will be required during the construction phase. |

# Section III – Supplementary Information

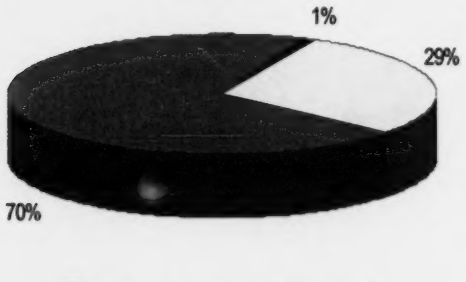
## 3.1 Financial Highlights

| Condensed Statement of Financial Position for the year ended March 31 | % Change | 2008-09 | 2009-10 |
|---|---|---|---|
| ASSETS | 69% | 159,318,798 | 268,825,486 |
| LIABILITIES | 70% | 143,571,401 | 243,384,631 |
| EQUITY | 62% | (15,747,397) | (25,440,855) |
| **TOTAL** | **69%** | **159,318,798** | **268,825,486** |

| Condensed Statement of Financial Operations for the year ended March 31 | % Change | 2008-09 | 2009-10 | 2009-10 Forecast |
|---|---|---|---|---|
| EXPENSES | 58% | 602,978,580 | 950,175,886 | 690,481,000 |
| REVENUES | 5% | 283,746 | 297,548 | 540,000 |
| **NET COST OF OPERATIONS** | **58%** | **602,694,834** | **949,878,338** | **689,941,000** |

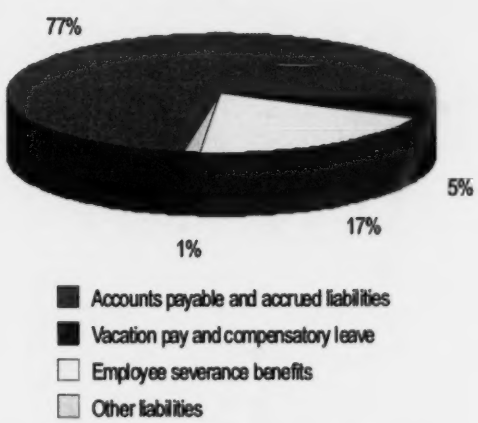
Note: The condensed statement of financial position has been adjusted due to the Agency's adoption of Treasury Board accounting standard TBAS 1.2.

**Assets by Type**



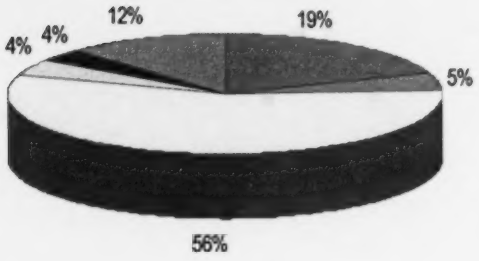

Total assets were $268.8 M, an increase of 69% ($109.5M) over the previous year's total of $159.3M. Due from Consolidated Revenue Fund represented $187.5M (70%); accounts receivable and advances represented $3.5M (1%); and tangible capital assets represented $77.8M (29%) of total assets.

**Liability by Type**




Total liabilities were $243.4M, an increase of 70% ($99.8M) over the previous year's total of $143.6M. Accounts payable and accrued liabilities represented $188.0M (77%); vacation pay and compensatory leave represented $10.9M (5%); employee severance benefits represented $41.6M (17%); and other liabilities represented $2.9M (1%) of total liabilities.

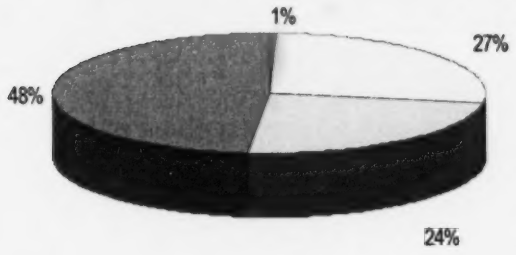
**Expenses - Where Funds Go**




- Health Promotion
- Chronic Disease Prevention and Control
- Infectious Disease Prevention and Control
- Emergency Preparedness and Response
- Strengthen Public Health Capacity
- Internal Services

Total expenses for the Agency were $950.2M. The Agency spent $182.6M (19%) on Health Promotion; $48.6M (5%) on Chronic Disease Prevention and Control; $531.2M (56%) on Infectious Disease Prevention and Control; $39.7M (4%) on Emergency Preparedness and Response; $36.5M (4%) on Strengthen Public Health Capacity and $111.6M (12%) on Internal Services.

**Revenue - Where Funds Come From**




- Health Promotion
- Infectious Disease Prevention and Control
- Emergency Preparedness and Response
- Internal Services

The Agency receives most of its funding through annual Parliamentary appropriations although some revenue is generated from program activities. All cash received by the Agency is deposited to the Consolidated Revenue Fund (CRF) and all cash disbursements made by the Agency are paid from the CRF. The Agency's total revenue was $297,500 of which $53,900 is respendable.

### Financial Statements

The Agency's 2009-10 Financial Statements are available online at http://www.phac-aspc.gc.ca/dpr-rmr/2009-2010/index-eng.php.

## 3.2 List of Tables

The following tables are located on the Treasury Board Secretariat Web site at http://www.tbs-sct.gc.ca/dpr-rmr/2009-2010/inst/ahs/st-tstb-eng.asp:

- Sources of Respendable and Non-Respendable Revenue
- User Fees Reporting
- Details on Transfer Payment Programs (TPPs)
- Horizontal Initiatives
- Green Procurement
- Response to Parliamentary Committees and External Audits
- Internal Audits and Evaluations